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Conditions Leading to Unresolved Attachment Status for Loss and the Role of Complicated Grief

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Conditions Leading to Unresolved Attachment Status for Loss and the Role of Complicated Grief

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Dedication

This dissertation is dedicated to my mother, who always encouraged me to learn. I miss her every day, and I hope she would be proud of my accomplishments as a scholar and as a woman. Also, I would like to dedicate this project to the mothers who volunteered to share their stories of loss and grief with me. I have learned so much from all of these women, and I admire them for their bravery and compassion.

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Conditions Leading to Unresolved Attachment Status for Loss and the Role of Complicated Grief

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A central goal of this study is to better understand why some mothers become unresolved with respect to experiences of loss whereas others do not. Adults are considered to be unresolved with respect to loss if they display signs of mental disorganization while discussing an attachment-related loss due to death – for example, talking in the present tense about a deceased person as if the person is still alive (Main, Goldwyn, & Hesse, 2002). Studies have accumulated documenting the negative consequences of being unresolved. Researchers have linked unresolved attachment to frightened/frightening maternal behavior (Jacobvitz, Leon, & Hazen, 2006), drug/alcohol abuse (Riggs & Jacobvitz, 2002), and other Axis I and II disorders (Ward, Lee, & Polan, 2006; Fonagy et al., 1996); as well as anxiety, anger, (Busch, Cowan, & Cowan, 2008) and controlling behavior (Creasey, 2002) in romantic relationships. Less is known about the conditions under which a person becomes unresolved. This study will be one of the first to examine the comprehensive effects of several risk factors known to influence a person's ability to resolve a loss including kinship, cause of death, and suddenness as well as primary attachment pattern. Other factors included in this study are social support and lifestyle changes.

Although attachment theory provides a thorough explanation for an individual's inability to resolve a loss, it is only one of many theoretical explanations of this phenomenon (Rando, 1993). One theory that is conceptually similar to unresolved loss is the theory of complicated grief, the process of painful searching and yearning for a deceased person (Prigerson et al., 1995b). Like those who study unresolved loss, complicated grief researchers are still seeking to understand what factors can predict whether an individual will experience prolonged symptoms of grief (van der Houwen et al., 2010). Also similar to unresolved loss, complicated grief involves irregular patterns of mental processes following a loss; however, complicated grief seems to be a conscious process, whereas unresolved loss has non-conscious components. Hence, this dissertation also examined whether complicated grief was related to unresolved loss and, if so, whether the origins for complicated grief were similar to unresolved loss.

Table of Contents

List of Tables xi

List of Figures xiii

Introduction 1

UNRESOLVED LOSS 2

COMPLICATED GRIEF 5

RELATING UNRESOLVED LOSS AND COMPLICATED GRIEF 9

Theoretical Similarities 9

Similarity of Risk Factors 13

Bereavement-related Factors 14

Intrapersonal Factors 17

Social and Environmental Factors 23

Similarity of Classification 25

Theoretical Differences 26

Method 29

PARTICIPANTS 29

PROCEDURE 31

MEASURES 32

Background Questionnaire 32

Attachment 32

Complicated Grief 34

Life Experiences Interview 35

Characteristics of Loss Experiences 36

Kinship 37

Mode of Death 37

Suddenness 38

Developmental Timing 38

Emotional Support 39

Communication 40
Daily Change 40
Depressive symptoms 41
Post-Traumatic Stress Disorder 42

Results 43
DESCRIPTIVE DATA 43
OVERVIEW OF ANALYSES 43
ASSOCIATIONS AMONG CHARACTERISTICS OF LOSS 44
PREDICTORS OF UNRESOLVED LOSS 45
PREDICTORS OF COMPLICATED GRIEF 50
ASSOCIATIONS BETWEEN UNRESOLVED LOSS AND COMPLICATED GRIEF 52

Discussion 54
CHARACTERISTICS OF LOSS AND UNRESOLVED LOSS 54
ATTACHMENT SECURITY AS A BUFFER 57
CHARACTERISTICS OF LOSS AND COMPLICATED GRIEF 60
ASSOCIATIONS BETWEEN UNRESOLVED LOSS AND COMPLICATED GRIEF 63
LIMITATIONS 65
FUTURE DIRECTIONS 66
Clinical Implications 68

Appendices 94
APPENDIX A: The Adult Attachment Interview 95
APPENDIX B: Life Experiences Interview 99
APPENDIX C: Inventory of Complicated Grief- Revised 102
APPENDIX D: Diagnostic Criteria for the ICG-R 107
APPENDIX E: Background Questionnaire 108
APPENDIX F: Center for Epidemiological Studies – Depression 111
APPENDIX G: Trauma Inventory 112
APPENDIX H: Loss Coding System 114
APPENDIX I: Coding scheme for non-consciousness in the ILEI 120

References.....122

List of Tables

Table 1. Characteristics of Loss Experiences 70

Table 2. Mothers' Attachment Classifications.....73

Table 3. Correlations Among Average Loss Characteristics.....74

Table 4. Correlations Among First Loss Characteristics.....75

Table 5. Associations between Average Loss Codes and Unresolved Loss Score76

Table 6. Associations between Risk Factors and Unresolved/Not Unresolved Loss using average scores for loss factors.....77

Table 7. Interaction Between Average Mode and Average Suddenness Predicting Unresolved/Not Unresolved.....78

Table 8. Logistic Regression Suppression Effect of Mode and Suddenness Predicting Unresolved/Not Unresolved.....79

Table 9. Associations between First Loss Codes and Unresolved Loss Score.....80

Table 10. Associations between Risk Factors and Unresolved/Not Unresolved Loss using first loss scores for loss factors 81

Table 11. Interaction Between Age at First Loss and Emotional Support at First Loss Predicting Unresolved/Not Unresolved 82

Table 12. Effect of Age at First Loss and Emotional Support at First Loss Predicting Unresolved/Not Unresolved Loss 83

Table 13. Association Between Average Suddenness and Unresolved Loss with Primary Attachment Category 84

Table 14. Association Between Emotional Support at First Loss and Unresolved Loss with Primary Attachment Category 85

Table 15. Association Between Daily Change at First Loss and Unresolved Loss with Primary Attachment Category 86
Table 16. Average Loss Codes as Predicting Complicated Grief.....87
Table 17. Associations between Depressive Symptoms, Post-Traumatic Stress, and Complicated Grief Scores.....88
Table 18. Variables predicting Highest Subjective Complicated Grief Controlling for depressive symptoms 89
Table 19. Associations between Complicated Grief Scores and Unresolved Loss90
Table 20. Highest Subjective Complicated Grief Score as Predicting Unresolved/Not Unresolved Loss.....91

List of Figures

Figure 1. Mode of Death with Respect to Unresolved/Not Unresolved.....92

Figure 2. Average Suddenness with Respect to Unresolved/Not Unresolved.....93

Introduction

For the majority of people in the world, the death of a loved one is an inevitable experience, and the grief that accompanies loss is expected. Although painful, grieving is a normative process, and it would be considered unusual by many experts if an individual did not experience some symptoms of grief following a significant loss (Rando, 1993). On the other hand, grieving for a long period of time may also be of concern. Specifically, much debate has ensued during the past several decades regarding the point at which grieving stops being 'normal' and starts being pathological. As it stands now, pathological grief is largely undetermined (Stroebe, Stroebe, & Hansson, 1993). Because researchers and clinicians have yet to agree on a threshold for pathological grief it stands to reason that there are multiple terms for and theories about this concept. In fact, Rando (1993) has noted several terms all used to describe this concept including "morbid, atypical, pathological, neurotic, unresolved, complicated, distorted, abnormal, deviant, [and] dysfunctional" (pg 11). Two of those concepts are presented in the current study: 'unresolved' (from attachment theory) and 'complicated' (from clinical literature).

Unresolved loss and complicated grief are strikingly similar theoretical concepts, yet it is unclear whether they are, in fact, the same construct from two different points of view or if they are different constructs with different predictors. The purpose of the current study is to provide some clarity on this question by examining predictors of unresolved loss and complicated grief as well as determining if a relationship exists between them. The subsequent sections will review unresolved loss and complicated grief in detail, followed by an assessment of the relationship between the concepts.

UNRESOLVED LOSS

Unresolved loss is a concept based in attachment theory, which is an etiological theory about how humans maintain relationships necessary for survival. Unresolved loss is assessed using the Adult Attachment Interview (Main et al., 2002), a semi structured, 24-question interview which typically takes between 45 and 90 minutes to administer. Interviews are audio-taped and transcribed verbatim, and interview scores are based upon the respondent's probable experiences with each parental figure and the respondent's current state of mind regarding these experiences (Main et al., 2002). State of mind, or internal working model, can be described as a person's expectations of the self, other, and relationships (Bowlby, 1973). These representations are described as "working" models because they are flexible (Belsky, 1999). Flexibility of the internal working model allows for an individual to easily adjust to minor changes in the home environment without any repercussions to the attachment system. The Adult Attachment Interview has been successful in assessing adult attachment security because it is designed to surprise the psyche in a way that allows for non-conscious thoughts associated with the internal working model to come forth.

When the death of a significant person occurs, a person's internal working model must be adjusted to incorporate that death as part of reality. According to attachment researchers, unresolved loss is the result of a lack of integration of a loss experience into one's internal working model (Main et al., 2002). For example, individuals may consciously understand that a death has occurred, but if they have not acknowledged the permanence of the situation non-consciously, mental disorganization occurs. This lack of mental reorganization/integration can be observed in transcripts of Adult Attachment

Interviews by focusing on the linguistic patterns of bereaved individuals during their discussions of loss (Hesse & Main, 2000).

During the Adult Attachment Interview, when respondents are questioned about deaths of significant persons, they are asked to recall circumstances of the loss including their age at the time of the loss, how they responded to the loss, and the suddenness of the loss (Main et al., 2002). They are also asked to speculate about the effect the loss had on other family members and the impact of the loss on their own personalities. Individuals who are unresolved with respect to loss exhibit momentary lapses in monitoring of reasoning or discourse during this discussion of loss (George, Kaplan, & Main, 1996). Lapses in monitoring of reasoning or discourse are indicative of unresolved loss due to the disorganized/disoriented nature of speech while discussing a loss. Some examples of lapses in monitoring of reasoning include disbelief that a person is dead or an unrealistic sense of having caused the death (Main et al., 2002). Lapses in monitoring of discourse can include prolonged silences, unfinished sentences, disoriented speech, or psychologically confused statements (Main et al., 2002). These unexplained, sudden, and brief disruptions in a person's mental state show that he or she has not incorporated the loss into his or her internal working model.

Unresolved loss has been validated empirically as a legitimate category of attachment. Most of the research on unresolved loss stems from its correspondence to the infant classification of "disorganized/disoriented," in which infants display bizarre approach-avoidance behavior following separation from the mother. Unresolved attachment was theorized to predict infant disorganization (Main & Hesse, 1990) and has been substantiated as such in meta-analyses (Bernier & Meins, 2008; van IJzendoorn, 1995), longitudinal studies (Carlson, 1998; Goldberg, Benoit, Blokland, & Madigan,

2003), and adolescent populations (Bailey, Moran, & Pederson, 2007; Madigan, Moran, & Pederson, 2006). Specifically, mothers with unresolved attachment often display frightening behaviors (e.g., dissociation or appearing frightened of the child) during caregiving (see Jacobvitz, Hazen, Zaccagnino, Messina, & Beverung, 2011) due to their shifts between conscious and non-conscious states (Main & Hesse, 1990). Following the validation of unresolved adult attachment as a predictor of disorganized infant attachment, researchers began demonstrating other detrimental outcomes of being unresolved.

Unresolved attachment has been linked to various psychological problems and mental disorders. For example, longitudinal assessments comparing 82 psychiatric patients to 82 non-psychotic (control) patients have demonstrated that 76% of psychiatric patients were unresolved, compared to only 7% in the control group (Fonagy et al., 1996). Further, that same sample revealed that unresolved individuals were more likely to have anxiety and bipolar disorder than patients who were not-unresolved. Similar results were found in a community sample of women in which those women with unresolved attachment were more likely to have a diagnosis of psychopathology, particularly if their secondary attachment classification was insecure (Ward et al., 2006). Other researchers have uncovered associations between unresolved status and psychological problems in middle-class samples. In particular, longitudinal analyses revealed reports of suicidal thoughts and emotional distress more often among unresolved individuals than non-unresolved individuals (Riggs & Jacobvitz, 2002).

Problems in romantic relationships have been found among unresolved individuals. Specifically, 80 women, representing an affluent sample, were examined in their marital relationships (Busch et al., 2008). This study revealed that unresolved wives

displayed less positive emotion, more anger, more sadness, and less collaborative problem-solving with their husbands. Similar results were found in dating couples for unresolved/insecure men and women, with additional analyses indicating domineering behavior among unresolved/insecure men and women (Creasey, 2002).

With a growing number of studies pointing toward negative outcomes of unresolved attachment, it is important to understand how individuals become unresolved. Unfortunately, little is known about the processes of why some individuals do not integrate their loss experiences into their internal working model, whereas other individuals do. Most researchers who do mention the origins of unresolved attachment only go so far as to note that unresolved attachment is rooted in the experience of significant loss and the inability integrate that experience into a broader mental model of relationships, which is the basic definition set in the Adult Attachment Scoring Manual (George et al., 1996). Hence, a central goal of the present study is to further understand why integration becomes difficult.

COMPLICATED GRIEF

Complicated grief is a clinical concept that emerged as an explanation of what happens when bereaved individuals have "lasting and acutely distressing grief that is associated with significant dysfunction" (Prigerson & Maciejewski, 2005, p. 9). To understand complicated grief, it is helpful to have a basic understanding about the natural progression of grief following the death of a loved one. Generally, grief has been conceptualized as a process -- starting with an intense emotional response from the bereaved individual and progressing until the individual has learned to accept the reality of the loss. Parkes (1970) and Bowlby (1961, 1980) described the early process of grief in terms of phases of numbness, searching and yearning, and disorganization and despair.

During the numbness phase most individuals feel stunned, but reactions can also include disbelief and feelings of tension, apprehension, anger, distress, or panic (Bowlby, 1980). These ideas were based on interviews with 22 widows visited five times over the course of 13 months following their experiences of loss (Parkes, 1970). These women experienced a phase of numbness that lasted anywhere from a few hours to a few days.

Following this period of numbness, the widows oscillated between experiences of searching/yearning for their husbands and feelings of disorganization/despair. The phase of searching/yearning incorporated many of the same grief symptoms found by Lindemann (1944), including general restlessness, preoccupying thoughts of the deceased, and crying. At the 13-month assessment, Parkes (1970) found that most of the widows were still struggling to accept the reality of the loss, which is an indication of the phase of disorganization. It is important to note, however, that although Parkes (1970) and Bowlby (1961, 1980) described various phases of grief, they asserted that these phases were guidelines, and individuals will fluctuate between the phases rather than following a fixed sequence. Therefore, the entire experience of early grieving can be thought of as acute grief, which encompasses the phases of numbing, searching and yearning, and disorganization and despair. Consequently, most current research on grieving refers to the early process of grief in this way.

Once individuals have successfully navigated through feelings of acute grief, they enter a phase of reorganization in which they have begun to comprehend the loss, regain interest in daily activity, and thoughts and memories of the deceased are no longer preoccupying (Bowlby, 1980). A meta-analysis of longitudinal, descriptive, and diagnostic bereavement studies demonstrated that, in fact, this is the trajectory followed by most bereaved individuals (Bonanno & Kaltman, 2001). Bonanno, Moskowitz, Papa,

and Folkman (2005) used a combination of structured clinical interviews, interviewer subjective ratings, self-report measures, and friend ratings to compare 41 bereaved and 41 non-bereaved individuals on resiliency after loss. They found that, although most bereaved individuals experienced symptoms of depression and post-traumatic stress disorder at 4-months post-loss, their symptoms of depression and post-traumatic stress disorder had lessened by 18-months post-loss and more closely resembled the non-bereaved individuals' levels of depression and post-traumatic stress disorder. This lessening of acute grief symptomology over time is likely due to individuals becoming accustomed to their new reality and learning to live without the deceased loved one. Integration of loss experiences is an important part of the mental reorganization that needs to occur within an individual in order to move forward in life (Bowlby, 1980; Rando, 1993).

For some individuals, however, mental reorganization fails to occur. As Bowlby noted, some individuals "become fixated in the first phase[s] of the [grief] process and, without knowing it, are striving still to recover the object that has been lost" (1961, p. 322). More specifically, these individuals remain in a state of heightened grief, much like acute grief, where they continue to experience disbelief, searching/yearning, and preoccupation with the deceased. These characteristics comprise part of the criteria for complicated grief.

Generally, complicated grief has been measured using the Inventory of Complicated Grief - Revised (ICG-R; Prigerson et al., 1999; Prigerson & Jacobs, 2001a). The ICG-R is a standardized self-report questionnaire which asks bereaved individuals to rate their current feelings regarding separation distress (e.g., yearning/searching for deceased person), traumatic distress (e.g., shock/disbelief death has occurred), and

impairment in social, occupational, or other daily functioning (Prigerson et al., 1999; Prigerson & Jacobs, 2001b). The bereaved individual must also note how often their symptoms have occurred during the past six months. Complicated grief researchers have since revised the terminology and the questionnaire format. Complicated grief is now predominantly referred to as 'prolonged grief disorder,' following Prigerson and colleagues' (2009) proposal for submission for inclusion in the DSM-V.

Conceptualization of complicated grief emerged in the mid-1990's starting with Prigerson and colleagues' (1995a; 1996) studies of conjugally bereaved elderly individuals. In these studies, it was demonstrated that complicated grief could be differentiated from bereavement-related depression, anxiety, and post-traumatic stress disorder (Boelen & van den Bout, 2005; Boelen, van den Bout, de Keijser, & Hoijtink, 2003; Prigerson et al., 1995a, 1996), but still predicted long-term impairments in global functioning, sleep, mood, and self-esteem (Prigerson et al., 1996). These findings have been replicated in younger, widowed populations (Boelen & van den Bout, 2008), as well as in children and adolescents who experienced other types of loss (Dillen, Fontane, & Verhofstadt-Deneve, 2008, 2009; Melhem, Moritz, Walker, Shear, & Brent, 2007). It has also been found that among 67 widowed individuals, assessed 2 - 34 months following bereavement, complicated grief was a better indicator of poor mental health, poor physical health, and impaired social functioning than either major depressive episodes or post-traumatic stress disorder (Silverman et al., 2000). In the present study, depressive symptoms and post-traumatic stress will be used as controls to ensure that complicated grief is a distinct outcome.

RELATING UNRESOLVED LOSS AND COMPLICATED GRIEF

Unresolved loss and complicated grief are similar concepts from two separate disciplines. Whereas developmental psychologists study unresolved loss, clinicians have focused on complicated grief. One goal of the present study is to better understand the relationship between these concepts. In fact, one important question to examine is whether these concepts are, in fact, the same construct or whether these constructs represent different outcomes of bereavement. Simply by describing each concept it is easy to see that parallels start to emerge; yet, it is difficult to discern from previous studies what the exact relationship is between unresolved loss and complicated grief. It is clear, however, that unresolved loss and complicated grief have two important similarities: their theoretical bases and their risk factors.

Theoretical Similarities

There are two major theoretical similarities between unresolved loss and complicated grief including where these concepts fall in the cycle of grief and how each construct is developed from a cognitive perspective. The two central diagnostic criteria for complicated grief, separation distress and traumatic distress, resemble characteristics of unresolved loss. Descriptions of separation distress in studies of complicated grief are similar to the searching/yearning phase of acute grief, during which individuals experience preoccupying thoughts of the deceased and an intense desire to find the lost person, and they suffer physically and emotionally from the inability to do so (Prigerson et al., 2009). Furthermore, separation distress is often discussed in terms of separation anxiety (Prigerson et al., 1999), a term coined by Bowlby (1961) to describe an infant's feeling of distress upon being separated from an attachment figure. When infants are experiencing separation anxiety, they long for the return of their attachment figure, and it

is the repeated disappointment following failed attempts at reunion that pushes them into acceptance of the loss (Bowlby, 1973). Ongoing searching/yearning for the attachment figure and failure to accept the reality of the loss are two of the indices of unresolved loss in the Adult Attachment coding manual (Main et al., 2002).

Traumatic distress refers to ways in which the individual is traumatized by the death as well as experiences of numbness, disbelief, anger, avoidance, emptiness/purposelessness, and a shattered world view (e.g., lost sense of control), among others (Prigerson et al., 1999). Individuals who are classified as Unresolved on the Adult Attachment Interview also exhibit many of these symptoms (Thomson, 2010). Disbelief that the loss has occurred is one notable lapse in monitoring of reasoning that often occurs while unresolved individuals are discussing a significant loss during the Adult Attachment Interview (Main et al., 2002). Also, prolonged silences and descriptions of intense emptiness are significant lapses in monitoring of discourse in the Adult Attachment Interview, contributing to the classification of unresolved (Main et al., 2002).

Further, a world view is conceptually similar to an internal working model as described in attachment theory. As was mentioned in the discussion of unresolved loss, internal working models are a person's expectations of the self, other, and relationships. When these expectations are challenged, or 'shattered', the individual is forced to reconcile the differences between the anticipated outcome and reality (Bowlby, 1980). This same idea can be seen in complicated grief literature. For example, in their 2002 theoretical article, complicated grief proponents Neimeyer, Prigerson, and Davies noted that bereaved individuals attempt to understand their losses by "integrating the reality of

a changed world into their conception of who they must be now" (pg 236). The changes in mental states described in both areas of research are practically identical.

Despite the theoretical similarities between complicated grief and unresolved loss, there has been no empirical research linking the concepts. That is not to say, however, that complicated grief has not been linked to other aspects of attachment theory. Because attachment theory is grounded in ideas about separation from a significant person, some researchers use the basic principles of attachment theory, such as avoidance (Shear et al., 2007), ambivalence (Melhem et al., 2004; Parkes, 2010), separation (Jacobs, Mazure, & Prigerson, 2000; Prigerson et al., 2009; Shear & Shair, 2005), dependency (Johnson, Vanderwerker, Bornstein, Zhang, & Prigerson, 2006), and childhood adversity (Silverman et al., 2001) to explain why losing a parent, sibling, spouse, or child produces feelings of grief. Other researchers have speculated about the relationship between complicated grief and attachment, but have not tested it empirically. For example, it has been theorized that individuals with insecure or disorganized internal working models would be more susceptible to developing complicated grief (Neimeyer et al., 2002). These studies draw on attachment theory to conceptualize complicated grief, but only two studies that have attempted to relate complicated grief to tenets of attachment theory empirically, and neither assessed unresolved loss.

In 2007, Shear and colleagues conducted a study to examine avoidance in a sample of 128 individuals (80% women) who were seeking treatment for complicated grief. The researchers were interested in avoidance of grieving because other researchers have noted that avoidance is a behavior that significantly impedes one's ability to adjust to experiences of loss (Boelen, van den Bout, & van den Hout, 2006; Bowlby, 1980). To assess avoidance of grieving, the researchers developed a self-report, 15-item

questionnaire which included situations that bereaved individuals commonly avoid. Complicated grief was assessed using the Inventory of Complicated Grief (ICG; Prigerson et al., 1995), which is a 19-item, self-report measure used to distinguish complicated grief from normal grief, depression, and anxiety. It was found that avoidance appeared to be a contributing factor to functional impairment of participants. Further, the researchers concluded that avoidance of grieving is an important component of complicated grief as it interferes with one's ability to revise his or her internal working model.

Another study with similar results was conducted more recently in an attempt to find a relation between attachment avoidance /attachment anxiety and complicated grief (Jerga, Shaver, & Wilkinson, 2011). In this study, 368 college students answered questions about loss using an online survey system. General attachment avoidance and anxiety were assessed using the Experiences in Close Relationships Scale (ECR; Brennan, Clark, & Shaver, 1998) and complicated grief was assessed using the Prolonged Grief - 13 (PG-13; Prigerson et al., 2009). It was found that general attachment anxiety and general attachment avoidance predicted prolonged grief disorder. Although these findings are interesting, the use of self-report indices in both studies provides only a limited picture of the relationship between attachment and complicated grief because an individual's attachment pattern, particularly in terms of unresolved loss, is a theoretically non-conscious representation.

In order to assess attachment representations that align with internal working models, the Adult Attachment Interview would have been a more appropriate measure to use. Self-report measures are only able to capture conscious accounts of a person's attachment style, whereas the Adult Attachment Interview assesses conscious feelings as

well as non-conscious representations put forth by Bowlby's theory (Jacobvitz, Curran, & Moller, 2002; Main, Kaplan, Cassidy, 1985). Additionally, it has been established that the Adult Attachment Interview and self-report measures of attachment do not assess the same constructs (Roisman et al.,2007). Therefore, the present study is important because it will not only be the first assess the relationship between unresolved loss and complicated grief, but also the first to assess the relationship between general attachment patterns using the Adult Attachment Interview and complicated grief.

Similarity of Risk Factors

Following Bowlby's (1961) conceptualization of the process of grief and loss, he noted five conditions which he believed affected the course of grieving of adults (Bowlby, 1980). These conditions included (a) the identity and role of the person lost, (b) the age and sex of the person bereaved, (c) the causes and circumstances of the loss, (d) the social and psychological circumstances affecting the bereaved about the time of and after the loss, and (e) the personality of the bereaved (e.g., attachment pattern; p. 172, 1980). Bowlby (1980) argued that these variables will affect the course of grief, but may also be mediated by attachment pattern. These same risk factors are frequently seen in the literature assessing complicated grief; however, in most studies of both constructs only a few of these risk factors are examined at one time.

Only one study (van der Houwen et al., 2010) has used a multivariate approach by assessing several risk factors at once. These researchers used many predictors which fit into the categories listed by Bowlby (1980) including bereavement-related predictors (e.g., kinship, cause of death, expectedness, time since death), intrapersonal predictors (e.g., age, gender, education, previous loss experiences, religiosity, spirituality, attachment anxiety/avoidance, neuroticism), social predictors (e.g., social support, current

living situation, therapy), and environmental predictors (e.g., practicing member of religious organization, financial status, medication use, and significant events around death). Factors noted as explaining most of the variance in grief outcome were gender, attachment avoidance, expectedness, and social support.

The risk factors for complicated grief and unresolved loss assessed in the present study are based on Bowlby's (1980) theory and van der Houwen and colleagues' (2010) multivariate study. These factors include bereavement-related predictors (e.g., kinship, cause of death, suddenness), intrapersonal predictors (e.g., developmental timing, primary attachment pattern), social predictors (e.g., emotional support, communication about the loss), and environmental predictors (e.g., the amount of daily change following the loss).

Bereavement-related Factors

Kinship

One of the most important circumstances to consider is the actual person who was lost. Most studies assessing loss have focused on spousal bereavement (Bonanno & Kaltman, 1999). Although these studies have provided important information about the process of loss and grieving, spousal relationships are not the only attachment relationships individuals have. Specifically, it is necessary to assess the effects of the loss of the original attachment relationship, the parent, as well as the loss of a child or a sibling. Bowlby (1980) hypothesized that an overwhelming majority of cases of disordered grieving were the result of the loss of an immediate family member. Most studies that use kinship as a predictor find that first-degree relationships do indeed affect bereavement outcome. Specifically, a longitudinal study of 116 mothers and their infants

revealed that mothers showed a higher tendency to be unresolved if they had experienced the death of a parent at any age (Jacobvitz et al., 2006). Similarly, a study of 947 recently bereaved college students found that the loss of an immediate family member (e.g., parent, child, sibling, or partner) was associated with more separation distress and more traumatic distress than the loss of a friend or extended family member (Holland & Neimeyer, 2011). It was anticipated in the present study that becoming unresolved with respect to loss and developing complicated grief would both be affected by the loss of a close attachment relationship.

Mode and suddenness of death

The mode of death can be thought of as the physical cause of death. Holland and Neimeyer (2011) used the categories 'natural/anticipated,' 'natural/sudden,' 'fatal accident,' 'suicide,' and 'homicide' to account for the variety of causes of death. They expected that cause of death would be related to the traumatic distress element of complicated grief. Their study revealed that college students who were bereaved due to violent circumstances had higher levels of traumatic distress than loss due to natural death (sudden or anticipated). Further, natural deaths and accidents were related to higher levels of separation distress, and those students bereaved by suicide or homicide had similar levels of traumatic and separation distress. A meta-analysis of 40 studies has also shown traumatic death (e.g., suicide) accounted for more variance in bereavement outcome than natural death (Lobb, Kristjanson, Aoun, Monterosso, Halkett, & Davies, 2010).

The degree of suddenness of the loss also has been theorized to be an important part of the loss experience (Bowlby, 1980). Bowlby's theories about suddenness are

based mostly on the results of a longitudinal study of 68 bereaved spouses conducted by Glick and colleagues (1974). Glick and colleagues found that sudden, unexpected losses led surviving spouses to experience greater anxiety, self-blame, depressive symptoms, and pathology that persisted to at least three years post-loss. This study demonstrated the possibility of how differing expectations were related to different outcomes for the bereaved. Spouses who had some degree of expectation of their spouses' deaths and had time to prepare for the deaths suffered no significant pathology.

Although some recent studies have examined the outcomes of differing expectations of loss, results are often conflicting, and none have examined the role of suddenness in becoming unresolved. In a comparative study of 540 parents bereaved by suicide, other sudden death, and natural causes, it was found that the role of suddenness of a loss produced mixed results (Feigelman, Jordan, & Gorman, 2009). Specifically, those who were bereaved by suicide were more likely to have problems grieving than those who experienced other sudden death or death by natural causes; however, general mental health indices revealed minimal differences between the groups. Similarly, for complicated grief in particular, researchers have found that children and adolescents who lost a parent to suicide show no differences compared to children and adolescents bereaved by an accident or natural causes, which is contrary to expectation. This inconsistency is replicated further in a study of the psychiatric outcomes of having experienced the death of a parent. In this study, researchers conducted four interviews over two years with 360 surviving parents and their children (Cerel, Fristad, Verducci, Weller, & Weller, 2006). They concluded that, although sudden death may be shocking, living in a stressful home can be just as difficult, particularly if it lasts months or years.

It is possible that research on the suddenness of loss has produced mixed results because suddenness has been conceptualized most often as the cause of death. Most studies that have included a suddenness variable used the mode of death as the assessment. This approach assumes that the mode of death is the same as the suddenness where predictable or anticipated loss is illness-related and sudden loss is an accident or, more extremely, suicide. Indeed, it seems reasonable to assume that a fatal accident is always sudden whereas death following a known illness is frequently expected; however, this is not always the case. A study of 68 widows and widowers revealed that spouses whose bereavement resulted from a short duration terminal illness had poor outcomes and prolonged grief (Parkes, 1975).

Delineating between cause and suddenness may also be important because some causes of death are more stigmatized than others. Specifically, some causes of death such as suicide may lead to disenfranchised grief (Doka, 2002). Disenfranchised grief occurs when a person's grief is not socially accepted or openly acknowledged. For example, it may be difficult for a person to seek social support following the suicide of a parent or child because it is an uncomfortable topic to people to discuss. Not being able to grieve outright for a lost loved one may contribute to development of complicated grief or unresolved loss. Therefore, because the physical cause of death does appear to be important, in this study I accounted for both the mode and the impression of suddenness. It is expected that more violent modes of deaths will lead to more complicated grief and unresolved loss. Further, it is expected that individuals who are unresolved or have complicated grief will have perceived losses to be more sudden than expected.

Intrapersonal Factors

Developmental timing

Because coping with loss at any age is difficult, it is important to consider the developmental timing of the loss. Particularly, there is some doubt about infants' abilities to grieve. For example, Bowlby (1980) described studies of infants who were separated from their mothers in hospitals for several weeks. He described how these infants displayed bizarre searching behavior, but it did not resemble adult grief. Similarly, case study reports have demonstrated that infants' reactions to experiences of loss are influenced by the adults' behavior around them (O'Dwyer, 2008). Loss in infancy may be particular damaging because, as O'Dwyer (2008) noted, later in life these individuals may rely on infantile defenses, such as denial or splitting, to help them manage distress. Although conclusions from case studies must be considered with caution due to the lack of experimental control, O'Dwyer's (2008) inferences provide general support the problematic outcomes of being bereaved during infancy.

Beyond infancy, children and adolescents also experience loss differently than adults. Similar to infants, children's abilities to grieve have been called into question. In fact, it has been suggested that children appear to develop a complete understanding of death only after the chronological or mental age of nine (Cuddy-Casey & Orvaschel, 1997). This coincides with Piaget's stage of concrete operational thought when children begin to think logically (Creasey, 2006). A child who has not reached this level of thought may have difficulty understanding loss, particularly when he or she is learning about the occurrence of the loss.

The loss of a parent during adolescence comes at a time of profound emotional, cognitive, and behavioral transitions (Allen & Land, 1999) when separation and individuation are normative, developmental tasks (Harris, 1991). Whereas infants and children seek parental comfort when distressed, adolescents will try to avoid parents in

times of distress (Allen & Land, 1999). In fact, following the death of a parent, clinical interviews with adolescents revealed how younger adolescents' grieving tended to resemble the grieving of children more than that of older adolescents, but all of the adolescents hid their emotions from friends and family (Harris, 1991). Although children and younger adolescents tended to remain near the hurting family, and older adolescents spent more time with peers, emotional expression seemed to be withheld purposefully in all cases. Further, the same study that indicated the significance of parent loss, (Jacobvitz et al., 2006) is the only empirical study to have demonstrated the impact of loss before adulthood in relation to attachment. Jacobvitz and colleagues reported that unresolved loss was prominent in mothers who had lost an attachment figure other than the parent before age 16. Together, these findings demonstrate the risk of experiencing a loss before adulthood. It is hypothesized that individuals who are unresolved or have complicated grief will have experienced more losses during younger ages than at older ages.

Attachment pattern

Another factor that could possibly advance the development of unresolved loss or complicated grief includes an individual's organized attachment pattern. The Adult Attachment Interview yields three organized categories of attachment: secure, dismissing, and preoccupied (Main et al., 2002) based on the three infant classifications: secure, avoidant, and anxious. An infant will develop a 'secure' attachment pattern if the caregiver is reliable and appropriately responsive to the infant's signals. A secure pattern arises because the infant knows the caregiver is dependable in times of need (Ainsworth, Blehar, Waters, & Wall, 1978). Similarly, a secure adult is someone who has learned

how to value attachment relationships and can describe positive and negative attachment experiences coherently and objectively (Main et al., 2002).

On the contrary, if the caregiver tends to respond to the infant's signals inappropriately (e.g., suggesting toys when the infant is hurt), the infant will learn that the caregiver is unreliable in times of need. Because the infant learns to expect unreliability in the latter scenario, he or she will develop an 'insecure' attachment pattern, either avoidant or anxious. Adults with an avoidant, or dismissing, classification tend to minimize the importance of attachment for their own lives or to idealize their childhood experiences without being able to provide unambiguous illustrations. Adults with an anxious, or preoccupied, classification maximize the importance of attachment because they are still caught up and preoccupied with their past experiences. Both types of insecure adults are unable to describe past experiences coherently and reflectively.

Although both secure and insecure attachment patterns serve the function of keeping proximity to the caregiver during infancy, a secure attachment is more favorable because of the internal working model it represents continuing into adulthood. For example, it would be natural to think that an individual who had a secure (e.g., loving, responsive) attachment relationship with the lost parent would experience a more painful loss than those with insecure (e.g., neglecting, rejecting) relationships; however, there is reason to believe otherwise. Insecure attachments, in general, likely become exaggerated and perhaps maladaptive in circumstances where primary attachments are threatened or lost; although these anxious/avoidant behaviors are developed to facilitate proximity to caregivers in infancy, these same behaviors in adulthood could lead to pathologic grief (Jacobs, 1999). Further, under conditions of great risk (e.g. loss), a secure attachment actually may be considered a protective factor (Greenberg, 1999).

One study of 283 widowed older adults compared levels of complicated grief to levels of reported childhood separation anxiety (Vanderwerker, Jacobs, Parkes, & Prigerson, 2006). They reported that childhood separation anxiety was associated with complicated grief, and suggest that childhood attachment disturbances may present an enduring susceptibility to the development of complicated grief. Although the authors do not use a formal measure of attachment, their results are in line with others' suggestions that an insecure attachment pattern is a risk factor for developing complicated grief (Shear & Shair, 2005). Attachment researchers have also noted the possibility that an insecure attachment pattern may be a risk factor. In fact, a preoccupied-insecure attachment pattern has been noted as a potential risk factor for becoming unresolved, particularly if there are experiences of parental divorce or separation during childhood (Jacobvitz, et al., 2006). Therefore, it is expected that secure attachment patterns will buffer the effects of unresolved loss, and insecure attachment patterns will not provide any protective benefit. Because the sample in the present study is small, a comparison between unresolved individuals who are and are not secure was conducted.

Communication

It is important to understand that discussion of the loss can have a major impact on the child's comprehension of the loss and future impressions of the world. Communication is crucial to facilitate a child's understanding of a loss. Researchers and clinicians agree that it is important for a parent to be honest with the child about the circumstances surrounding the loss so as not to create a discrepancy in the child's understanding of the situation (Ainsworth & Eichberg, 1991; Bowlby, 1980; Cain, 2002;

Mitchell, Wesner, Brownson, Dysart-Gale, Garand, & Havill, 2006; Rando, 1986). Unfortunately, there is a common misconception that the child must be 'protected' from the horrible truth. In fact, popular media portrayals of parental death often depict the surviving parent using metaphors that a child appears to understand.

One interesting example comes from the well-known film Independence Day (Emmerich, 1996) which includes a scene where a father and his young daughter sit in a hospital following the mother's death. In this scene, the daughter asks, "Is Mommy sleeping now?" and the father replies, "Yeah, Mommy is sleeping now." This movie scene creates an impression that using metaphors is an acceptable form of communication with a child following the death of a parent. However, for a child who has yet to develop logical thought, metaphors and euphemisms are too advanced linguistically and will likely be misinterpreted (Mitchell et al., 2006). Telling a child that his or her mother is sleeping, when in fact the mother has died, can create an unrealistic fear of sleep (Bowlby, 1980). More specifically, the child may begin to fear sleeping due to the inability to understand the metaphor. Similarly, telling a child that someone has gone to heaven, without explaining the meaning of heaven, is the same as telling the child the deceased person has gone to another distant place in the world (Bowlby, 1980). Although it may be hard to be honest with a child about a complicated situation, metaphorical or euphemistic explanations make it difficult for a child to resolve a loss properly because they do not have the same cognitive understanding of the world as an adult.

A descriptive study of 11 adolescents revealed that receiving misinformation about the death of a parent led to feelings of regret and guilt about their possible role in causing the death (Harris, 1991). According to the Adult Attachment coding manual, belief in being causal in the death is one index of being unresolved. Taking the time to

be as clear and honest as possible is an effective means of helping a child to grieve. When this fundamental emotional need is overlooked, children may be at risk for developing an unresolved attachment to the lost parent. Hence, the degree to which adults learned about the loss directly (e.g., being present at the time of the death) versus indirectly (e.g., hearing about the loss on an answering machine message) on their propensity to become unresolved or develop complicated grief was examined. It is expected that indirect communication is more likely to lead to becoming unresolved for loss and developing complicated grief.

Social and Environmental Factors

Emotional Support

The environment may also play a large role in helping people grieve and adapt to a loss. Not surprisingly, the potential negative effects of loss can be modified by a good home environment (Luecken, 2000). One main way this occurs is through emotional support. There are many variations of emotional support including physical affection, talking about thoughts/feelings, or just providing a safe environment in which grieving openly is acceptable.

For example, a study comparing 30 parentally bereaved individuals reported that the quality of caretaking following loss plays an important role in the well-being of children (Luecken, 2000). Further, Luecken reported that poor-quality caregiving after an early loss experience is associated with higher depressive symptoms and lower social support in adulthood. This finding can be explained by accounting for daily change. Thus, the amount and quality of emotional support adults perceived receiving from others was assessed in this study. I hypothesize that less positive emotional support will be

prohibitive in allowing an individual to integrate the loss experience in a healthy way. More positive emotional support will be less likely to lead to unresolved loss or complicated grief.

Daily Change

Sometimes losses do not affect the daily lives of the bereaved; other times, particularly following the loss of an immediate family member, loss brings about change. At its minimum, there may only be a few days or a week of change in which the bereaved individual prepares for and/or attends a funeral. At its maximum, however, change in family structure, living arrangements, and financial status (Sanders, 2003) can have an impact on how individuals are able to grieve.

When the family structure is permanently disrupted, reorganization must occur. Bereaved families must simultaneously come to terms with their losses and continue living their own lives. Restructuring of the family is a process that requires attention and sensitivity on the part of the bereaved. For example, parentally bereaved children who have good quality, affectionate, and stable relationships with their surviving parents fare better than those with depressed or unavailable parents (Luecken, 2000). When reorganization of the family structure malfunctions, and children do not receive good quality care, they may be at a higher risk for developing unresolved loss and complicated grief.

Sometimes daily change can transpire in the form of concurrent stressors, e.g., divorce, pregnancy, or relocation. Concurrent stressors are not necessarily associated with the loss event, but can affect the way an individual reacts to it. Sanders (2003) noted that the “adaptive resources of the bereaved may already be at a minimum when a major

bereavement occurs, leaving them even more vulnerable and helpless." (p. 266). Such a post-loss environment can prohibit an individual from being able to grieve in a healthy way, and may contribute to the development of unresolved loss or complicated grief. The degree to which the loss disrupted adults' daily routine was assessed in this study. It is expected that more daily change will be related to higher instances of unresolved loss and complicated grief.

Similarity of Classification

Not only do unresolved loss and complicated grief share similar possible predictors, both constructs are typically classified in terms of dichotomous variables, e.g., either individuals are unresolved or they are not. Recent research, however, has emphasized the idea of using continuous scores of unresolved loss and complicated grief. This method may be helpful in determining when grief becomes pathological because grief itself is a continuum.

Holland, Neimeyer, Boelen, and Prigerson (2009) gathered a sample of 1069 bereaved individuals in order to use a taxometric method to examine the underlying structure of grief. They found that little support was offered for categorical conceptualization of normal and prolonged grief. It was determined that using a continuous method of assessment would be reasonable as it may be more accurate and leads to more statistical power. Recent studies of complicated grief have since begun to use severity scores (e.g, Jerga et al., 2011; Simon et al., 2011)

Attachment researchers have also begun advocating for the use of continuous scores. Coherence scales have been shown to differentiate between secure and insecure attachment patterns and the unresolved scales for loss and trauma have also been used to successfully capture an unresolved state of mind (Crowell, Treboux, Gao, Fyffe, Pan &

Waters, 2002). In their meta-analysis of the first 10,000 Adult Attachment Interviews, Bakermans-Kranenburg and van IJzendoorn (2009) supported the idea of using the pair of continuous scores for Unresolved and Coherence of Transcript to identify group differences.

It seems as though both unresolved loss and complicated grief can be conceptualized as categorical or continuous variables. The categorical technique has been the predominant method used in the past; however, because research is leaning toward continuous scores, I used both methods in the present study.

Theoretical Differences

One interesting difference between unresolved loss and complicated grief is in how each construct is assessed. Unresolved loss is determined by assessing non-conscious slips during discourse about loss in an interview whereas complicated grief is determined by a self-report questionnaire. It is likely due to this difference that these similar constructs have not been compared empirically.

This discrepancy between conscious and non-conscious processes is one that may be important in determining the relationship between unresolved loss and complicated grief. If both unresolved loss and complicated grief are manifestations of a lack of integration of loss into one's internal working model, why is complicated grief only assessed as a conscious process? Is complicated grief a subset of unresolved loss, or is unresolved loss a more pathogenic form of complicated grief? Currently, the answers to these questions are unknown. I believe it is essential to determine how unresolved loss and complicated grief are related, both in process and in manifestation, because it will help researchers and clinicians know how help those who suffer from pathological grief.

Therefore, a contribution of this study is to provide information on all loss experiences by using an interview method. Investigations using interviews lead to better understanding of trauma because researchers can obtain a clearer representation of the survivors voice (Leahy et al., 2003). Although there are some diagnostic interviews used by clinicians that are designed to ask questions about loss (see Rando, 1993 p. 665), such interviews are designed to ask about one or two recent or significant loss experiences. Hence, to learn about individuals' experiences with each loss, a shorter more specific interview used in this study. This interview will also provide a means for assessing any non-conscious components of complicated grief.

To summarize, unresolved loss and complicated grief have been conceptualized in a very similar way. Both constructs have used ideas stemming from Bowlby's (1961, 1980) writing on grief, yet their literatures research is largely separate. Therefore, unresolved loss and complicated grief can be understood using the process of grief integration as a model. Furthermore, unresolved loss and complicated grief have similar predictors. Because conditions leading to unresolved loss and complicated grief (e.g., developmental timing, relationship, etc.) have only been examined in a limited number of empirical studies, it is possible that they can be predicted using the same variables. These conditions are likely to individually predict the development of unresolved loss and complicated grief, but it is also possible that outcomes are worse for these constructs when the conditions are concurrent.

Hence, in this study, I will test four hypotheses. First, I will examine how the risk factors of loss relate to unresolved loss. Second, I will examine how the risk factors of loss relate to complicated grief. Specifically, I hypothesize that unresolved loss and complicated grief will be related to: (a) losses of a closer relative, (b) losses of more

important individuals, (c) more physically sudden losses, (d) more losses perceived as sudden, (e) more losses occurring at younger ages, (f) having an insecure attachment classification, (g) leaning about the loss in an indirect manner, (h) receiving less emotional support following a loss, and (i) more daily disruption following the loss. Third, I hypothesize that complicated grief and unresolved loss will be related. Fourth, I will explore whether complicated grief can be assessed non-consciously.

Method

PARTICIPANTS

The present study includes data from 60 mothers. Participants were recruited from four local childcare centers in the Austin, Texas area. Mothers had an average age of 37.65 years ranging from 29 to 48 years. Most mothers were married (86.7%) and had one or two children (88.3%). Further, most mothers were Caucasian (71.7%); Latino and Asian ethnicities were equally common, 11.7% and 10% respectively. Three percent of mothers identified themselves as African American, and 3% identified themselves as 'other.' An overwhelming 96.6% of the mothers had a college degree with 53.3% of those mothers completing a graduate degree. Seventy percent of mothers were employed full-time, 18.3% were unemployed, but not looking for a job (e.g., stay-at-home mom), and the remaining 11.7% were unemployed and looking for a job or were full-time students. This sample had a high socioeconomic status with the majority of mothers' annual joint income at $100,000 or higher (61.7%). Approximately 18% of mothers' annual household income ranged from $75,000 to $99,000, and another 13% ranged from $50,000 to $49,000 per year. The lowest household income ranged from $35,000 to $49,000 (7%). Participants generally had low levels of depressive symptoms ($\mu = 8.72$, SD = 6.2, range = 0 - 31) and post-traumatic stress ($\mu = 25.93$, SD = 8.2, range = 17 - 55).

These participants were drawn from two different samples. The first sample was drawn from a group of mothers recruited from the waiting list of the Priscilla Pond Flawn Child and Family Laboratory at the University of Texas at Austin (UT) and participated in an intervention study designed to foster positive alternatives to harsh parental discipline. Of the 48 women in that study, 31 were located through mailers detailing the study and via phone, and 27 agreed to participate in the present study. These mothers'

primary ethnicity was Caucasian. Approximately 30% of the mothers were Latino, Asian, or African American. The mean age of mothers at the time of the previous study was 34 years (range 26 - 43). The distribution of mothers' education level was: some post high school (9.6%), finished college (57.7%), and graduate school (32.7%).

The second sample was second group of 58 mothers was recruited through local childcare facilities around Austin, Texas. Mothers were recruited from the Priscilla Pond Flawn Child and Family Laboratory, the UT Child Development Center (both locations), and one location of the Stepping Stone School which was nearest the University of Texas. Mothers were recruited using pamphlets detailing the study. Further, mothers at the UT Child Development Center and the Stepping Stone School, were recruited in person at the centers during the evening pick-up times. Of the 58 mothers who expressed interest in the study, 33 agreed to participate.

It should be mentioned that there are some differences between the samples in education level and employment status. Only 30% of mothers from the first group had earned a graduate degree whereas 73% of the mothers from the second group had graduate level education ($\chi 2=11.98$, df=2, p=0.003). Further, 30% of mothers from the first sample were stay-at-home moms compared to only 9% of mothers from the second sample, $\chi 2=11.16$, df=3, p=0.011. These differences were most likely due to recruitment wherein the mothers from the second group were recruited mostly from university childcare centers during the evening pick-up times. It would stand to reason that these mothers would be highly educated and working full-time. There were slight differences between groups in income level likely due to the differences in employment status, but the difference was not significant. There were no differences between groups in marital status, ethnicity, or attachment classifications.

PROCEDURE

This study was approved by the University of Texas at Austin's Institutional Review Board, and informed consent was obtained for all participants. Mothers were contacted via phone to schedule their interviews. One group of mothers had completed the Adult Attachment Interview three to four years prior to the present study; therefore, they participated in only one interview. Most of these interviews were completed at a laboratory at the University of Texas; however some interviews were conducted at the mother's home or over the phone. During this session, mothers completed the consent form, the background questionnaire, measures of complicated grief, depressive symptoms, and post-traumatic stress; then, the Integration of Life Experiences interview was completed. When the session was finished, mothers were thanked for their involvement in the study and given developmentally appropriate gifts for their children including books and passes to the local children's museum.

The remaining mothers participated in two sessions. The first session took place at a laboratory at the University of Texas. During this session, mothers completed the consent form, the background questionnaire, and measures of depressive symptoms and post-traumatic stress; then, the Adult Attachment Interview was administered. When this session was finished, mothers were thanked for their involvement in the study and given developmentally appropriate gifts for their children such as books and passes to the local children's museum. Approximately two weeks later, the mothers participated in the second session where they completed the measure on complicated grief followed by the Integration of Life Experiences interview. Following mothers' participation in the second session, they were give then option to enjoy an evening of free child-care provided by the project researchers or a gift card to a local business.

MEASURES

Background Questionnaire

The background questionnaire asked mothers to provide demographic information including their date of birth, age, number of children, sex, ethnic background, and identifying culture (see Appendix E). The questionnaire also included questions about marital status, income and education levels of the mothers and their partners as well as employment status of the participants and their partners. Further, to understand some of the mothers' family histories, questions about their parents' education levels and their own life experiences were asked.

Attachment

The primary assessment of attachment during adulthood is the Adult Attachment Interview (George et al., 1996, see Appendix A), which was designed to evaluate the respondent's state of mind (internal working model) with respect to his or her attachment history. The Adult Attachment Interview is a semi structured, 24-question interview which typically takes between 40 and 75 minutes to administer. Interviews are audio-taped and transcribed verbatim, and interview scores are based upon the respondent's probable experiences with each parental figure, and the respondent's current state of mind regarding these experiences (Main et al., 2002).

The Adult Attachment Interview involves questions about attachment experiences as a child and uses frequent probes to enhance the specificity of the individual's responses and to facilitate memory. Following administration of the Adult Attachment Interview, the interviews must be transcribed and coded by a trained coder according to the procedures described in the Adult Attachment Scoring and Classification System (Main et al., 2002). Interview scores are based upon the respondent's probable

experiences with each parental figure and the respondent's current state of mind regarding these experiences. The interview yields three primary categories: secure, dismissing, and preoccupied. Individuals who are classified as secure speak clearly and provide sufficient, but not excessive, detail about their experiences (Main et al., 2002). Transcripts that are less clear are typical of dismissing and preoccupied classifications. Specifically, individuals with a preoccupied classification often overwhelm the reader with detail and have difficulty keeping discussions of the past and the present separate. On the other hand, individuals with a dismissing classification often fail to provide adequate information about their experiences and have a lack of specific memories.

Individuals are also assigned a classification of 'unresolved state of mind in relation to loss or abuse' if their interview narratives regarding attachment-related loss or trauma include momentary lapses in monitoring of reasoning or discourse (Main, et al, 2002). Unresolved loss and unresolved abuse are rated on a scale from 1.0 to 9.0; however, a loss or abuse experience must be mentioned during the interview in order to be scored. Individuals are classified as unresolved when scores were above 5 on the "unresolved with respect to loss" scale and/or are above 5 on the "unresolved with respect to abuse" scale. Because classifications for unresolved use the highest rating from either the loss scale or the trauma scale, it was important for the present study to use the unresolved loss scale score in analyses as well as the categorical variable.

The Adult Attachment Interview has been a successful instrument for assessing adult attachment because of its ability to capture individuals' mental representations of attachment relationships. Because these internal working models of relationships are flexible, they are stable over time (Belsky, 1999). An individual can easily adjust to minor daily changes in the home environment without any repercussions to the

attachment system. Therefore, the Adult Attachment Interview is a useful tool for obtaining a description of attachment history.

Complicated Grief

To date, there are several self-report measures of grief integration. The Inventory of Complicated Grief- Revised (ICG-R; Prigerson et al., 1999; Prigerson & Jacobs, 2001; see Appendix C) is a revised version of the original 19-item ICG. The ICG-R has 17 self-report items that examine symptoms of two main characteristics of complicated grief: separation distress and traumatic distress. These items include topics such as longing for the deceased, disbelief over the death, preoccupation with the deceased, and current inability to trust. Items are assessed on 5-point scales, and individuals must meet the criteria listed in Appendix D to be diagnosed with complicated grief. This measure also assesses the duration of the present symptoms (e.g., being present for at least six months), and impairment over the past month. The ICG has been determined to measure the single underlying construct of complicated grief (Prigerson et al., 1995). Further, the ICG's reliability has been found to be high based on high internal consistency (Cronbach's α = 0.94) and test-retest reliability over six months which was 0.80 (Prigerson et al., 1995). The ICG has also displayed convergent and criterion validity (Prigerson & Jacobs, 2001a).

Recently, a further revised version of the ICG has become more prevalent in research. The Prolonged Grief - 13 (PG-13, Prigerson et al., 2009) was the final version proposed for inclusion in the DSM-V. The differences between the PG-13 and the ICG-R are minimal. One interesting difference, however, is that many researchers are choosing to sum the scores of the PG-13 to get a rating of severity of complicated grief. Because

this is more in line with the idea of a continuum, I adopted this approach along with the typical categorical method. Scores ranged from 11 to 44.

Because some participants had multiple losses, it seemed unreasonable to ask them to complete Inventories of Complicated Grief for every loss. Therefore, participants rated each loss experience on a 5-point scale for how much of an impact that loss had on them overall (1=very impactful, 5=not impactful). For losses rated as a 1 or a 2, participants were asked to complete the ICG-R.

Life Experiences Interview

A short interview specifically based on the Inventory of Complicated Grief (Prigerson et al., 1995) and the Texas Revised Inventory of Grief (TRIG; Faschingbauer, Zisook, & DeVaul, 1987) was developed for this study. This interview, the Life Experiences Interview (LEI), was used to supplement the Adult Attachment Interview and the Complicated Grief Inventory by providing a more detailed assessment of loss experiences. Further, the LEI was used to identify characteristics surrounding each loss that may lead to unresolved attachment, as well as identify any non-conscious elements of complicated grief. This grief integration assessment consists of questions similar to those in grief inventories, but in a semi-structured interview format.

The LEI (see Appendix B) begins by asking participants to recall general, challenging life experiences. Because all of the participants were mothers, the next set of questions probed participants on their challenges regarding motherhood. The interviewer then inquired about loss due to separation (e.g., friendships ending, non-marital romantic break-ups, and divorce) and finally permanent losses due to death including questions regarding the participant's relationship with the deceased, the circumstances surrounding the death, the participant's feelings, and coping experiences. The LEI was used to help

identify characteristics of loss that may not have been indicated during the Adult Attachment Interview. More specifically, the LEI was coded for bereavement-related, intrapersonal, social, and environmental factors.

An exploratory analysis of the LEI was also conducted in which complicated grief was assessed objectively based on what the individual said about each loss experience. For each loss that participant completed the ICG-R, I rated characteristics of complicated grief on a 3-point scale (0=not present, 1=possibly present, 2=present, see Appendix I). For example, if an individual mentioned that the deceased person came to her in dreams, this was rated as a 2 on 'intrusive thoughts' which is part of the separation distress scale. The scores for each characteristic were summed to create a composite for each loss experience. The composite scores were correlated with the individual's score on ICG. If the scores are uncorrelated, it could indicate that the objective ratings may be detecting a different conception of complicated grief.

Characteristics of Loss Experiences

The Adult Attachment Interview and the Life Experiences Interview were both used to code loss experiences using the following factors: (a) kinship, (b) mode of death, (c) suddenness, (d) developmental timing of the loss, (e) emotional support, (f) communication about the loss, and (g) daily change. See Appendix H for the detailed coding scheme. One primary coder coded each loss. Using a sample of 39 losses, high inter-rater reliability was found for the scales of importance (Cronbach's α = .86), suddenness (Cronbach's α = .94), emotional support (Cronbach's α = .70) and daily change, Cronbach's α = .87. Kinship, mode of death, developmental timing, and communication were not tested for inter-rater reliability because there is little subjectivity

in scoring those variables. General descriptions and examples of the variables are listed below.

Kinship

This variable has two parts. At the most basic level kinship includes the categorical relationship between the bereaved and the deceased (i.e. parent, friend). This relationship is the degree of the relationship ranging from 1 (no connection) to 7 (first degree relative: mother, father, sibling, child, or spouse). Second-degree relatives include grandparents, aunts, uncles, and cousins. Close friends, boyfriends, relatives-in-law, co-workers, teachers, and neighbors were lesser degrees of separation from the individual. During the interview process, it became clear that there were a wide range of relatives and friends who played important roles in the bereaved individuals' lives. To account for this, the importance scale was created. This scale ranks the importance of the deceased person ranging from 1 (not important) to 7 (persistent importance). It was not uncommon for a grandparent or aunt or uncle to be rated as a 6 or 7. In some cases, lost friends ranked higher on the importance scale than a lost relative. It is hypothesized that the loss of more significant relationships (first-degree and high rating of importance) will be more related to an individual's likelihood of becoming unresolved with respect to loss or having complicated grief.

Mode of Death

Each loss was coded for the physical cause of death regardless of the bereaved individual's interpretation of the cause. This variable includes five categories of loss taken from Holland and Neimeyer (2011): natural/anticipated, natural/sudden, fatal accident, suicide, and homicide. Natural/anticipated deaths included causes such as

terminal illness whereas causes of death such as a heart attack or stroke were labeled as natural/sudden deaths. Fatal accidents most commonly represented automobile accidents; however, being trapped in a fire or falling on a knife are examples of other accidents reported in the present study. The individuals' impressions of the degree of expectedness of each loss were accounted for by the suddenness scale.

Suddenness

This variable was used to determine the individual's sense of the degree of suddenness of the loss. It is a continuous variable ranging from 1 (predictable/expected) to 7 (extremely sudden). Typically losses categorized as natural/sudden, fatal accident, suicide, and homicide were rated as 6 or 7; however, some natural/anticipated losses were rated higher if the bereaved individual reported feelings of surprise, unpreparedness, or shock. For example, one mother discussed her surprise at her uncle's death:

> I mean we knew he was really sick but um we- we flew over on the Tuesday night and he seemed okay I mean he was talking and frustrated you know and everything didn't seem to be working right but and then died on the Thursday . . . [he] seemed to be doing really well and we were making plans for him to come back to the house so it was a shock in that when we saw him he was obviously really sick with the cancer. (Participant Interview, 2011)

In this case, the participant had some knowledge of the possibility of losing her uncle but still found it shocking.

Developmental Timing

This variable is continuous and was determined using age in years. For every loss a mother mentioned, she was asked to give her age at the time of the loss as best she

could remember. Mothers were generally consistent in reporting their ages at the times of loss experiences; however, there were some anomalies. In a few cases, mothers whose Adult Attachment Interviews were collected a few years prior to this study reported experiencing a loss at one age but reported a different age (up to 4 years difference) in the Life Experiences Interview. In these cases, the average of the ages reported was used as the developmental timing score for that loss. Experiences of losses ranged from infancy through adulthood, in some cases within months or weeks of participating in this study.

Emotional Support

This variable was used to determine the emotional support given to the individual following the loss. It is a continuous variable ranging from 1 (complete negative support) to 7 (complete positive support). Lower scores were given when individuals were prohibited from grieving openly or forced to deal with their grief alone. For example, one participant lost both of her grandfathers during her early adolescent years and, because both of her parents worked full-time, she learned about the loss from a message when she returned home from school. Not only was she alone when she learned of her grandfathers' deaths, she was also responsible for explaining the situation to her younger sisters and being a comfort to them. One the other hand, higher scores of emotional support were given when mothers clearly had a source of support whether it was a family member, a therapist, or church group. The score of 4 was used as a middle ground indicating that individuals needed no support. Scores of 4 were most often given when the participant had a distant connection to the lost person and therefore had little to no feelings of sadness or grief regarding the death.

Communication

This variable was used to determine how the participant became aware of the loss. There are three possible categories: direct communication, indirect communication, or unknown (e.g., participant did not remember how she learned of the death). Direct communication includes four sub-categories: (1) present at/witness death, (2) told in-person, (3) told via phone from a family or friend, and (4) told via phone from a third party (e.g., the hospital). The underlying theme in the direct communication categories is that the individual is provided the chance to ask questions and/or be consoled or comforted. Indirect communication does not allow for the aforementioned opportunity. The sub-categories of indirect communication include: (1) email/voicemail, (2) finding out too late to attend memorial events, and (3) overhearing or never being explicitly told of the loss. Indirect communication can be illustrated by the story of one participant who was three years old when she lost her mother and was told that her mother had gone to a different country to seek treatment for her illness. The participant did not learn the truth about her mother until she was six years old when she was told by an older cousin. In this type of communication the individual is not given the option to inquire about more detail and the individual is less likely to be comforted.

Daily Change

To assess the amount of disruption in a person's life following a loss experience, each loss was coded for daily change. This variable was a continuous assessment on a 7-point scale where 1 represented 'no change' and 7 represented 'complete change.' Low scores of daily change included time spent for funeral activities. For example, if a mother indicated that she had to travel out of town to attend a funeral, she received a score of 2 for daily change because there was a small disruption to her daily routine. If the mother

mentioned that she was upset for weeks or months following a loss, she was given a higher score for daily change. Higher scores were given to more permanent change. Further, most changes were negative (e.g., spending months dealing with relatives who were bickering over a grandparent's estate), but not all changes were due to the loss itself. There were several reports of mothers who missed funerals of important loved ones because they were in the hospital giving birth. These cases were given higher scores for daily change because, although the change was not the result of the loss, the mothers were often unable to separate the experiences in their discussions of loss.

Depressive symptoms

The Center for Epidemiological Studies of Depression (CES-D; Radloff, 1977; see Appendix F) was used to control for depressive symptoms. The CES-D is a 20-item scale that assessed components of negative mood in non-clinical populations such as lack of appetite, difficulties sleeping, trouble concentrating and levels of happiness. Participants respond to each of the 20 items by indicating the frequency in which each item occurs in their life. Choices range from 0 = rarely or none of the time (or less than one day) to 3 = most or all of the time (5-7 days). Scores range from 0-60, in which scores of 16 or higher were used to determine probable depression. The CES-D has shown adequate test-retest reliability and internal consistency across a wide range of sub-samples (Roberts, Rhoades, & Vernon, 1990). It has shown an alpha of .85 in a general population, and test–retest reliability over a 2- to 8-week period ranged from .51 to .67. Convergent validity is supported by significant correlations with other scales designed to measure depression (Hann, Winter, & Jacobsen, 1999).

Post-Traumatic Stress Disorder

The PTSD Checklist- Civilian Version (Weathers, Huska, & Keane, 1991; see Appendix G) is a self-report questionnaire that includes 17 items assessing DSM-IV criteria for post-traumatic stress disorder. Participants are asked to indicate the extent to which the problems listed have bothered them in the past month. The PCL-C uses a 5-point rating scale ranging from 1 "not at all" to 5 "extremely" to assess these items. For example, participants are asked if they have felt "very upset when something reminded [them] of a stressful experience from the past." The PCL-C has demonstrated excellent psychometric properties. Specifically, it has been shown to be reliable over time (α = 0.96), and it has high internal consistency (α = 0.97; Weathers, Litz, Herman, Huska, & Keane, 1993). Further, the PCL-C has been validated using other measures of PTSD (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996). These psychometric properties have been confirmed by others (Ruggiero, Del Ben, Scotti, & Rabalais, 2003). Items were summed to create a composite score, and participants will be considered to suffer from PTSD if their composite scores are above the recommended cut-off of 50 (Blanchard et al., 1996).

Results

Descriptive Data

Overall, the 60 mothers in the present study reported 269 losses due to death. Every mother in this study reported experiencing at least one loss experience with some mothers reporting up to 12 experiences of loss in their lifetime. In general, most women lost a second-degree relative (72.8%), and half of all losses reported were due to natural/anticipated causes (50.6%). As would be expected, the number of losses increased with age with nearly three-quarters (72.9%) of the losses occurring when the participant was older than 16 years of age. Other characteristics of the losses in this sample, including how important the deceased person was to the participant, the perceived level of suddenness of the loss, how mothers learned about the loss, and how much mothers lives changed following the loss are reported in Table 1.

Attachment Classification as determined by the Adult Attachment Interview yielded four categories of mothers: 48.3% Secure (F), 6.7% Dismissing (Ds), 5.0% Preoccupied (E), and 40.0% Unresolved (U). Of the mothers who were given a classification of Unresolved, 20 of 24 (83%) were unresolved for loss. Major classification (Ds, F, or E) was used for the four mothers who were classified as unresolved for abuse when running analyses with unresolved loss. Table 2 displays the distribution of attachment patterns in the current sample. The current sample is not representative of a national sample of non-clinical mothers due to an over-representation of unresolved and preoccupied mothers.

Overview of Analyses

One goal of the present study was to gain insight into the patterns of loss experiences that might lead to becoming unresolved with respect to loss. Because

unresolved loss is a between-subjects variable and the loss variables are within-subjects variables, analyses were handled in two ways. First, each mother's scores on the loss variables were averaged. As an example, if Mom A experienced three losses in which the suddenness scores were 6, 6, and 3, Mom A's average suddenness score was entered as a 5. This number indicates that Mom A experienced losses that were more sudden, on average, than a mom whose average suddenness score was a 3. Also, the scores for the mothers' first loss experiences were used because the first loss experience may set the tone for how individuals react to later losses.

ASSOCIATIONS AMONG CHARACTERISTICS OF LOSS

Several associations were found among the average loss codes (see Table 3). Losses of more important people were more often associated with greater amounts of daily change and were more often perceived as sudden; however, importance was only marginally associated with kinship. Sudden losses were more often associated with more unpredictable causes of death, receiving more emotional support, and experiencing more daily change after the loss. Similar to suddenness, more unpredictable modes of deaths was associated with receiving more emotional support.

There were also associations found among the characteristics of loss for the first loss experience (see Table 4). Mothers who experienced their first losses at younger ages were less likely to report that the loss was of an important person. Further, women who reported their first loss at an older age also tended to have more emotional support as well as more daily change. When a mother's first loss experience was due to more unpredictable causes, the mother was more likely to perceive the loss as sudden; however, the mother was less likely to report that the deceased person was a close

relative. Finally, when mothers reported their first loss was of an important person, they were more likely to report daily change following the loss.

Some of the associations between average loss scores and first loss scores are similar. As would be expected, the relationship between mode of death and suddenness was true for both sets of loss codes. Further, losses of closer kin are associated with more changes in daily life on average as well as for the first loss experience. On the other hand, there were some differences between associations among average loss scores and associations among first loss codes. The age of the participant at first loss was significantly associated with importance, emotional support, and daily change; however, the average age of loss was not significantly associated with any other loss variables. Moreover, more sudden loss experiences, on average, were associated with more important relationships, more emotional support, and more change whereas the suddenness of the first loss experience did not.

PREDICTORS OF UNRESOLVED LOSS

It was hypothesized that unresolved loss would result from: (a) losses of a closer relative, (b) losses of more important individuals, (c) more physically sudden losses, (d) more losses perceived as sudden, (e) more losses occurring at younger ages, (f) learning about the loss in an indirect manner, (g) receiving less emotional support following a loss, and (h) more daily disruption following a loss. To test this hypothesis, I used two sets of analyses: one set used the average loss codes and the other set of analyses used the codes for first loss experience. First, I used the average scores of the loss factors as the independent variables and the unresolved loss scale score as the dependent variable in a series of linear regressions in SPSS (see Table 5). Average suddenness was a marginally significant predictor of the unresolved loss score (R^2 = .249, F[1,59] = 3.84, p = .055);

however, none of the other average loss characteristics, including age, kinship, importance, mode, communication, emotional support, and daily change, were significant.

Next, I tested the first hypothesis again by examining the relationship between the average loss codes and whether the mother was unresolved versus not-unresolved. Similar to the previous finding, a series of logistic regression analyses revealed that mothers were more likely to be unresolved (versus not-unresolved) if they experienced more losses that they perceived to be sudden (see Table 6). The regression correctly classified 65% of participants which is a little more than 15% improvement over the rate of accuracy achievable by chance alone, Nagelkerke R^2 = .18. Accuracy achievable by chance (55.6%) was calculated by squaring and summing the predicted proportions of the unresolved and not-unresolved categories. None of the other average loss codes (i.e., age, kinship, importance, mode, communication, emotional support, and daily change) were significant predictors of unresolved loss.

The suddenness of the loss is often portrayed as the same construct as cause of death or what I have termed 'mode.' As noted earlier, the two are correlated. A second review of the correlations revealed that the pattern of these correlations is what would be expected of a classic suppressor effect in which average suddenness was correlated with average mode (r = .713, $p \leq .0001$) and unresolved loss (r = .359, p = .005); however, average mode was not correlated with unresolved loss (r = .005, *ns*). To examine these associations, I first tested whether the interaction of average mode and average suddenness predicted unresolved loss. The analysis was not significant (see Table 7). Thus, I controlled for average mode in a logistic regression with average suddenness as an independent variable and unresolved/not-unresolved as the dependent variable. The

analysis revealed a surprising suppressor effect. As shown in Table 8, when mode was entered as a control for suddenness, both mode and suddenness were significant predictors of unresolved loss. This model was a better fit than suddenness on its own, classifying 73% of cases correctly, which more than a 25% improvement over the rate of accuracy achievable by chance alone, Nagelkerke R^2 = .38. Based on suddenness alone, mothers with more sudden losses were twice as likely to be unresolved than mothers with fewer sudden losses. By accounting for mode, the predictive capacity of suddenness improved by more than three times so that mothers with more sudden losses were 6.6 times more likely to be unresolved than mothers with fewer sudden losses. This suppression effect demonstrates that the mode of death alone did not predict unresolved loss. It was the combined effect of mode and suddenness, and not the interaction of them, which predicted an unresolved classification.

Next, I used the scores for mothers' first loss experiences as a predictor of unresolved loss. To test the relationship between the characteristics of loss and unresolved loss, I used the first loss experience scores for each of the loss characteristics as the independent variables and the unresolved loss scale score as the dependent variable in a series of linear regressions. None of the characteristics of the first loss experience (i.e., age, kinship, importance, mode, suddenness, communication, emotional support, and daily change) were significant predictors of scores on the unresolved loss scale (see Table 9).

Then, I used the characteristics of the first loss experience as the independent variables and the categorical variable 'Unresolved/Not Unresolved' as the dependent variable to test whether the characteristics of loss would be predictors of unresolved loss. A series of logistic regression analyses (see Table 10) revealed two marginally significant

predictors. Mothers were marginally more likely to be unresolved (versus not-unresolved) if they perceived less emotional support for their first experiences of loss and reported more daily change following the first loss experience. The regression using emotional support as the predictor of unresolved loss correctly classified 68% of participants Nagelkerke R^2 = .08, and the regression using daily change as the independent variable correctly classified 67% of participants, Nagelkerke R^2 = .09. Both regressions improved classification by more than 20% over chance alone. None of the other first-loss codes (i.e., kinship, importance, mode, suddenness, age, and communication) were significant predictors of unresolved loss.

Because emotional support for the first loss was a marginally significant predictor of unresolved loss, I explored this variable in more detail. With such a low pseudo-R squared, it was possible that emotional support was a function of the age of the participant at the time of her first loss. Mothers' first losses occurred at a mean age of 16 years, (range = 2 - 36 years, mode = 12 years). Therefore, I first examined whether an interaction between first-loss emotional support and mothers' age at the time of the first loss. The interaction was not significant (see Table 11). Then, I entered emotional support as the independent variable in a logistic regression while controlling for mothers' age at the time of her first loss. Again, the dependent variable was unresolved/not-unresolved. The analysis revealed that when controlling for age at first loss, emotional support at first loss was a significant negative predictor of unresolved loss (see Table 12). This model was a better fit than first-loss emotional support alone, classifying 70% of cases correctly, which is a 25% improvement over chance alone, Nagelkerke R^2 = .10.

Associations between attachment security and unresolved loss were also tested. I hypothesized that having a primary attachment classification of secure (F) versus a

primary classification of insecure (Ds and E) would have a buffering affect on becoming unresolved. To investigate this hypothesis, three multinomial regressions were tested in which the outcome variable had three categories: unresolved-secure, unresolved-insecure, and not-unresolved. The category 'not-unresolved' was chosen as the reference category because the other categories had too few subjects to act as a reference. The first analysis used the average suddenness scores as the independent variable because it was a significant predictor of the unresolved/not-unresolved variable. The final regression model was statistically significant ($-2LL = 64.80$, $\chi^2 = 9.33[2]$, $p = .009$) confirming that average suddenness has a significant effect on the dependent variable. The analysis revealed that average suddenness significantly distinguished the 'unresolved-secure' classification from the 'not-unresolved' classification (see Table 13). Mothers who experienced more sudden losses were more likely to be unresolved-secure than not-unresolved. Further, average suddenness only marginally distinguished between the 'not-unresolved' classification and the 'unresolved-insecure' classification. This model correctly classified 67% of cases correctly which is more than a 25% improvement over the rate of accuracy achievable by chance alone, Nagelkerke $R^2 = .18$.

The second regression analysis used first-loss scores for emotional support as the independent variable because it was a marginally significant predictor of unresolved/not-unresolved. The final regression model was marginally significant ($-2LL = 29.62$, $\chi^2 = 5.31[2]$, $p = .070$) which parallels the finding in which emotional support for the first loss had a marginally significant effect on the dependent variable. The analysis revealed that the emotional support mothers perceived following their first loss significantly distinguished mothers who were classified as 'unresolved-insecure' from those classified as 'not-unresolved' (see Table 14). Mothers who experienced less emotional support

when their first loss occurred were more likely to be unresolved-insecure (versus not-unresolved). No distinction was found between being unresolved-secure versus not-unresolved with respect to emotional support following the first loss. This model correctly classified 67% of cases correctly which is more than a 25% improvement over the rate of accuracy achievable by chance alone, Nagelkerke $R^2 = .10$.

The third regression analysis used the scores for the amount of daily change following mothers' first experiences of loss as the independent variable because it was a marginally significant predictor of unresolved/not-unresolved (see Table 15). The final regression model was not significant (*-2LL* = 22.43, $\chi^2 = 4.26[2]$, *ns*). Change in mothers' daily lives following the first loss did not distinguish those considered unresolved-secure versus not-unresolved or those considered as unresolved-insecure versus not-unresolved.

PREDICTORS OF COMPLICATED GRIEF

The next set of analyses examined whether the characteristics of loss predicted complicated grief. Of the 269 total losses, 93 were assessed for complicated grief based on impact scores rated by participants. Using the categorical classification method of the Inventory of Complicated Grief - Revised (see Appendix D), no mothers in the current study met the full criteria for having complicated grief. Therefore, I calculated severity scores where higher scores indicated greater instances of complicated grief-like symptoms. Severity scores ranged from 16 to 44 ($\mu = 23.45$, *SD* = 6.89). Further, because complicated grief is typically assessed using only one loss experience, I used the highest complicated grief score for each mother (N = 60) to represent her most impactful loss. To be consistent with the analyses for predictors of unresolved loss, I used the average scores for the loss codes when they were included in analyses. Codes for experiences

surrounding the first loss were not used because there was no theoretical basis for including them.

It was hypothesized that complicated grief would result from: (a) loss of a closer relative, (b) loss of more important individuals, (c) more fundamentally sudden loss such as an accident, (d) a perception of the loss as sudden, (e) the loss occurring at a younger age, (f) having an insecure attachment classification, (g) learning about the loss in an indirect manner, (h) receiving less emotional support following a loss, and (i) more daily disruption following the loss. A series of linear regression analyses revealed several characteristics of the loss were associated with higher scores on complicated grief: average kinship (R^2 = .08, F[1,59] = 4.97, p = .03), average importance (R^2 = .16, F[1,59] = 11.20, p = .001), average suddenness (R^2 = .09, F[1,59] = 5.45, p = .023), and average daily change, R^2 = .28, F(1,59) = 22.77, $p \leq .0001$ (see Table 16). The variables average mode, average age, average communication, average emotional support, and major attachment classification were not significant predictors of complicated grief.

In previous studies, depression and post-traumatic stress have been related to complicated grief. There was some empirical support for this relationship in the current sample. Depressive symptoms and post-traumatic stress symptoms were highly correlated (r = .71, $p \leq .0001$), but only depressive symptoms were significantly correlated with complicated grief, r = .42, p = .001. Post-traumatic stress was marginally correlated with complicated grief, r = .23, p = .082. Entering symptoms of depression and post-traumatic stress as predictors of complicated grief in a linear regression, depressive symptoms were significant (R^2 = .08, F[1,59] = 4.97, p = .03), but post-traumatic stress was not significant (see Table 17).

Because there was a significant relationship between depressive symptoms and complicated grief, the next analysis was undertaken to examine whether the characteristics of loss were predicting complicated grief rather than the depressive symptoms. Therefore, depressive symptoms were controlled for in the following analysis. A hierarchical linear regression was conducted with depressive symptoms entered in the first block. The second block added the significant predictors from the initial analyses: kinship, importance, suddenness, and daily change. The analysis revealed that depressive symptomology became a marginally significant predictor when accounting for kinship, importance, suddenness, and daily change, $\Delta R^2 = .219$, $F[1,59] = 7.39$, $p \leq .0001$ (see Table 18). Further, in the full regression model, only kinship and daily change remained significant predictors of complicated grief. Importance and suddenness were no longer significant. It would seem that kinship and daily change are significant predictors of complicated grief after accounting for depressive symptoms, but importance and suddenness were only significant predictors when depressive symptoms were not taken into consideration.

ASSOCIATIONS BETWEEN UNRESOLVED LOSS AND COMPLICATED GRIEF

Another central goal of the present study was to empirically test the relationship between unresolved loss and complicated grief. Twenty mothers in the current sample were classified as unresolved with respect to loss; however, contrary to the hypothesis, no mothers met the criteria for complicated grief based on the standardized measure. If unresolved loss and complicated grief were the same construct, it would be expected that there would be similar instances of each. Further, it was expected that unresolved loss and complicated grief would be correlated; however, complicated grief was not correlated

with either the unresolved loss scale score (r = .03, *ns*) or the categorical variable unresolved/not-unresolved, r = .16, *ns*.

Based on the lack of categorical classification of complicated grief, I used the severity score of complicated grief to test whether there was a relationship with unresolved loss. Three analyses were conducted: two analyses using unresolved loss as a categorical variable (unresolved/not-unresolved) and one analysis using the continuous scale for unresolved loss. First, a linear regression was used to test whether unresolved loss predicted complicated grief. The analysis was not significant (see Table 19). Next, I re-ran the linear regression using the continuous score of unresolved loss as the independent variable to predict complicated grief. The analysis was not significant, R^2 = .029, F[1,59] = .050, *ns* (see Table 19). Second, the logistic regression employed to test whether complicated grief predicted the categorical variable unresolved/not-unresolved yielded non-significant results (see Table 20). There was no empirical support for a relationship between complicated grief and unresolved loss.

Finally, an exploratory part of the present study was to examine whether complicated grief could be assessed non-consciously. In order to determine whether complicated grief could be a non-conscious construct, 56 losses for which mothers completed the Inventory of Complicated Grief - Revised were coded by a trained researcher for the criteria of complicated grief (see Appendix D). A moderate correlation was found between mothers' subjective ratings and the researcher's ratings of complicated grief symptoms (r = .475, $p \leq 0.000$). This result indicates that mothers and researchers have fairly similar assessments of mothers' experiences of complicated grief.

Discussion

There were several unique findings produced in this study. First, of all the characteristics of the loss experience examined in the present study, mothers who had experienced more sudden losses overall and less emotional support following their first loss experience were more likely to be unresolved with respect to loss. Second, the perceived suddenness of a loss was a more significant predictor of unresolved loss than the physical cause of death of the loved one, which is important because, in previous research, the suddenness of the loss and the cause of the death typically have been combined into a single predictor. Third, this was the first study to examine the relationship between unresolved loss and complicated grief. Contrary to my hypothesis, there was no evidence in this study that complicated grief and unresolved loss are the same construct despite so many conceptual similarities. In fact, the significant predictors of complicated grief and unresolved loss were largely separate with suddenness and emotional support being more predictive of unresolved loss and kinship and daily change being more predictive of complicated grief. Possible explanations for these findings and their implications for future research will be discussed.

Characteristics of Loss and Unresolved Loss

The current study revealed several important findings regarding the predictors of unresolved loss. Of all the characteristics of loss that were tested, two stood out as particularly important: overall suddenness of the loss experience and the amount of emotional support mothers received for their first loss experiences. This result is in line with previous research (Glick et al., 1974; Luecken, 2000); however a closer look at these variables revealed more detail about how they influence whether an individual becomes unresolved with respect to loss.

This study is the first to assess the independent contribution of mothers' perceptions of the suddenness of their loss experiences and the cause of the death on their propensity to become unresolved with respect to loss. Most previous studies only assess the negative effects of the cause of the death itself on the bereaved finding that when the cause of death is more sudden or violent in nature, bereaved individuals have more complicated grief (Keesee, Currier, & Neimeyer, 2008). The few studies that have examined adults' perceptions of the suddenness as well have yielded mixed results (Feigelman et al., 2009). Some studies have shown that sudden losses are more likely to lead to poor bereavement outcomes (Glick et al., 1974) whereas others have demonstrated that the taxing nature of long-term illnesses leads to poor bereavement outcomes (Cerel et al., 2006). It is possible that the mixed results are due to the fact that individuals' perceptions about the suddenness of the loss are not considered in most studies. For example, one participant in the present study reported that her father died by committing suicide; however, she noted that his death was only "a little unexpected" because he had previously shown indications of a plan to take his own life.

Perhaps one of the most important contributions of this study was finding that mothers' perceived suddenness of loss and the physical cause of death itself independently predicted the likelihood that mothers would become unresolved with respect to loss. When examining each factor alone, the cause of death itself was a poor predictor of unresolved loss but the participants' perception that the death was sudden was a significant predictor. However, when the actual cause of death and mothers' feelings about the suddenness of the loss were combined in the same analysis, each of these factors independently predicted mother's unresolved loss.

To explore this finding, data plots were created to view the distribution of perceived suddenness with respect to being unresolved and the distribution of the cause of death with respect to being unresolved. The histograms revealed that there were no differences in the cause of death between individuals who were unresolved and those who were not which explains why it was not a significant predictor on its own (see Figure 1). However, mothers who were unresolved consistently rated their loss experiences as more sudden than mothers who were not unresolved (see Figure 2). Interestingly, even though the majority of the losses experienced by all participants stemmed from natural causes, mothers who perceived those losses as sudden were more likely to be unresolved.

Because bereavement experiences are complex, it is important to consider the joint effects of what bereaved individuals perceive as well as the actual circumstances surrounding the loss. Combining assessments of the physical cause of death and the perceived expectedness of the loss creates a multidimensional representation of the true suddenness of the loss. Future studies should assess both characteristics together to gain a more complete understanding of their influence on a mothers' difficulty resolving loss.

In the present study, a mother's perception of emotional support following her first experience of loss predicted whether she would be unresolved with respect to loss; however, this relationship was only found when controlling for the mother's age when she experienced her first loss. Having a source of emotional support following the loss of a loved one can be a great source of comfort (Rando, 1993). It stands to reason, then, that feeling a sense of emotional support following one's first experience with loss, particularly if it occurs during childhood, would be an important factor in how the individual copes with the pain of grief (Silverman & Worden, 2003). Regardless of how old mothers were when they experienced the loss of a loved one for the first time,

mothers who were unresolved with respect to loss tended to perceive less positive support than those who were classified as not-unresolved. This finding supports the idea that the emotional support a mother perceived affects her ability to fully integrate a loss into her internal working model of attachment. Because having emotional support following their first experiences with loss was important for mothers at any age, researchers and grief counselors should keep in mind that both children and adults need to feel as though they are being supported in their time of grief.

ATTACHMENT SECURITY AS A BUFFER

Previous research has suggested that having a primary attachment classification of 'secure' can act as a buffer when an individual is faced with negative life events (Jacobvitz et al., 2006). In the present study, the perceived level of suddenness distinguished mothers who were unresolved but who were also securely attached from mothers who were not-unresolved. Specifically, mothers who perceived their loss experiences to be more sudden were more likely to be classified 'unresolved-secure' than to be classified as not-unresolved. Individuals considered secure on the Adult Attachment Interview have shown an appreciation for attachment relationships, the ability to regulate their emotions, an awareness of their feelings, and the ability to talk about their experiences objectively (Main et al., 2002). Because of these characteristics, individuals who are unresolved but also secure may be more likely to express their distress related to the suddenness of the loss allowing them to cope and ultimately resolve these feelings.

One might expect individuals who are insecure to have experienced losses that were more sudden making it difficult for them to resolve them. Yet, there were no differences between mothers who were unresolved-insecure and mothers who were not-unresolved with respect to their perceived levels of suddenness. One explanation is that

insecure mothers may be less likely to perceive the losses as sudden even if they were sudden. Adults who receive a classification of insecure on the Adult Attachment Interview have more difficulty expressing emotion (dismissing) or, they have tended to be over-emotional, ruminating, or worrying about relationships (preoccupied; Main et al., 2002). In both cases, it is possible that these individuals have already prepared for the loss on some level. Individuals who are classified as dismissing may not value relationships enough to feel a sense of suddenness about death. Because these individuals tend to avoid emotions attached to relationships, they may be more likely to interpret a loss as the natural order of life. Additionally, individuals with a preoccupied classification may have already worried about the possibility of loss to the extent that they are less surprised when the death occurs. Although attachment security was not necessarily a buffer in this case, this result further supports the necessity of assessing the perceived level of suddenness as a predictor of unresolved loss.

Although attachment security did not seem to be a buffer in regards to how sudden a loss felt to mothers, having a secure classification was related to degree of emotional support mothers felt following their first loss. Mothers who were unresolved-secure perceived more emotional support following their first loss experiences than those who were not-unresolved. Similarly, mothers who perceived less emotional support at the time of the first loss were more likely to be unresolved-insecure than not-unresolved, but there were no differences in emotional support between mothers who were unresolved-secure and not-unresolved.

It is possible, however, that the relationship between having a secure (versus insecure) primary attachment classification and the amount of emotional support mothers reported when experiencing their first loss is confounded. Mothers who are classified as

secure may have earned that classification because they have someone who is able to provide emotional support in times of need. Having a caring, supportive figure who can provide encouragement during stressful times helps promote attachment security when individuals might otherwise be insecure (Saunders, Jacobvitz, Zaccagnino, Beverung, & Hazen, 2011). Mothers who are insecure may have fewer options for getting emotional support. Thus, there was not enough information in the present study to determine whether it is the attachment security or emotional support that provided a buffer against poor bereavement outcomes. A closer examination of mothers' perceptions of emotional support following their first loss experience could help determine the role of attachment security in becoming unresolved with respect to loss.

It is also interesting to consider the loss factors that marginally related or did not relate to unresolved loss in this study. For example, how much effect the loss had on a person's daily life, on average, marginally predicted unresolved loss. Specifically, the trend implied that the more change in daily routine following a loss, the more likely it was that a mother would be unresolved. One possible explanation for finding a marginal instead of a significant relationship is that most of the people lost in the current sample were second-degree relatives (e.g., grandparents, aunts, uncles, and cousins). More changes in participants' daily lives would be expected if there were more losses of first-degree relatives (e.g., parents, children, spouses, or siblings) because those relationships are more likely to affect a person's day-to-day life.

The abundance of losses of second-degree relatives would also explain why kinship and the importance of the relationship were not significant determinants of whether the bereaved individual would become unresolved. Even though many mothers had one or more grandparents who were extremely important to them, the bond between

parents and children will be more important to most people. Therefore, a study including more loss of first-degree relatives would likely reveal that unresolved loss is associated with losing closer, more important relationships as more change in daily routines.

Further, it was expected that experiencing more losses at younger ages would be associated with unresolved loss; however, this was not the case in the current study. It is probable that this relationship was undetectable because mothers tended to experience more losses later in life. This phenomenon would also explain why the way in which a mother learned about a loss did not relate to whether she would be unresolved. How a person finds out about a death is important during childhood because children have difficultly interpreting explanations for loss that are not honest and direct (Bowlby, 1980); however, because most losses in this sample occurred during the mothers' adulthood, the way they learned about the loss may not have been a factor that affected their ability to cope with loss experiences. To test for the relationship between unresolved loss and how a mother learns of a death would require an examination of more early loss experiences than were available in the current sample. Only 43 of 269 losses (16%) in the current sample occurred when participants were aged 12 or younger, which was not enough detect this effect.

CHARACTERISTICS OF LOSS AND COMPLICATED GRIEF

The characteristics of the loss experiences were theorized to related to complicated grief in the same way they would relate to becoming unresolved with respect to loss. Instead, complicated grief was related to different characteristics than those which related to unresolved loss. The specific relationship the bereaved person had with the deceased person and the amount of change in day-to-day routines were the only significant predictors of complicated grief found in the present study. The relationships

between these variables and complicated grief held true even after controlling for depressive symptoms which supports the idea that complicated grief is a construct separate from depression (Prigerson et al., 2009). The relationship between kinship and complicated grief has been found in previous studies in which the death of closer kin leads to greater symptoms of complicated grief (Holland & Neimeyer, 2011); however, the relationship between change and complicated grief is a relatively new finding. One explanation for finding that more change in an adult's day-to-day activities following the loss of a loved one predicts higher levels of complicated grief is that intense feelings of separation from the deceased person coupled with the trauma of being bereaved can influence the way an individual behaves..

Following a loss, the bereaved individual may feel intense separation distress (e.g., longing for the lost person) and/or traumatic distress (e.g., disbelief the loss has occurred; Prigerson et al., 1999). Experiencing distress may be more likely if the loss results in many changes in one's daily life. It is possible that individuals who report more symptoms of complicated grief (e.g., avoiding reminders of the deceased or intrusive thoughts about the deceased) also report more feelings of change or disruption. For example, one mother recalled how her siblings and cousins began fighting over their grandparents' estate following their grandmother's death the previous year. The mother reported that the disagreements among family members are on-going, and she now avoids attending family gatherings. This mother had to make necessary changes in her life to avoid the unpleasantness in her family resulting from the death of her grandmother. Another participant who lost her husband in a car accident reported several months of disturbing dreams:

> I would dream that he would . . . come home and that he would wake me up and say uh, you know, "I'm home!" and then I'd be like, "You died!" and then he'd be like, "No! What are you talking about? You must have been dreaming," and then, "You must have been dreaming, that wasn't real, you know, I'm alive," and then I'd be like, "Oh thank God, you know, you're alive!" you know and then I'd wake up and he was dead. (Participant Interview, 2011)

This mother faced the death of her husband over and over as she repeatedly dealt with her intrusive thoughts. More research is needed to test the relationship between daily changes and complicated grief; nevertheless, changes in daily life did seem to have an important connection to complicated grief that it did not have with unresolved loss which helps explain why complicated grief and unresolved loss were not related in this study. In fact, one explanation for not finding other significant predictors of complicated grief may be due to the lack of more severe complicated grief symptoms found in this study.

Complicated grief is currently under debate about its inclusion as a recognized disorder in the Diagnostic and Statistical Manual of Mental Disorders (DSM), Fifth Edition. Specifically, some people believe that the disorders described in the current edition of the manual (DSM-IV; American Psychiatric Association, 1994) adequately account for symptoms individuals experience following bereavement. Alternatively, there has been evidence to show that complicated grief is distinct from disorders such as Major Depressive Disorder and Post-Traumatic Stress Disorder, and this distinction is important for treatment options (Prigerson et al., 2009). Because of this debate, many empirical studies assessing predictors of complicated grief have emerged in recent years. The findings in the current study add to this literature, but it is also important to explore how these findings differ from previous studies. For example, Rando (1993) asserted that

some risk factors of complicated grief can include losses that were sudden or unexpected as well as losses in which the relationship was markedly dependent prior to death; however, these predictors were not found in the present study. It is possible that using the participant's average score for each predictor lessened the ability to detect the impact of particularly sudden or important losses. Future analyses using the most sudden or most important loss as a predictor may reveal a significant relationship to complicated grief.

ASSOCIATIONS BETWEEN UNRESOLVED LOSS AND COMPLICATED GRIEF

There was no evidence in the present study that unresolved loss and complicated grief are the same construct. Twenty participants were classified as unresolved for loss; yet, none were classified as having complicated grief. Complicated grief and unresolved loss were not significantly correlated, and neither construct was predictive of the other. Moreover, as noted earlier, the characteristics of loss which most significantly predicted higher scores of complicated grief were not the characteristics that most significantly predicted unresolved loss. Being unresolved with respect to loss was associated with mothers' perceptions that their loss experiences were more sudden overall and with mothers' reports of receiving less emotional support for the first loss experience. Higher complicated grief scores, on the other hand, were more likely to result when mothers experienced more losses of closer relatives such as a parent or child and experience more daily disruption following their loss experiences.

One reason for finding no relation between unresolved loss and complicated grief is that no participant in this study met the full criteria for complicated grief. Although some participants did experience losses of significant people, no one met the levels of separation distress and traumatic distress necessary to be classified as having complicated grief. This result is most likely due to the fact that most of the losses in this study

occurred several years in the past, and research has shown that complicated grief may decline within a couple years post-loss. Therefore, it is reasonable to believe that the relationship between unresolved loss and complicated grief could be a function of time. For example, one study assessed complicated grief in a sample of 70 bereaved spouses at six months and 14 months post-loss (Horowitz et al., 2007). They found that both the frequency and intensity of symptoms declined over time. Only a minority of the mothers in the current sample experienced losses within the past 14 months. Another more diverse study found that complicated grief could often be observed up to two years post-loss, but declined after four years (Boerner et al., 2005). On average, the mothers in the current study reported their highest levels of complicated grief symptoms for losses that occurred more than nine years prior. Therefore, it may be that the symptoms of complicated grief had already declined by the time the study was conducted.

Alternatively, the losses experienced by mothers in this study may not have been significant enough to elicit symptoms of complicated grief. Specifically, most studies of complicated grief assess first-degree losses (e.g., Horowitz et al., 1997; Holland et al., 2009; Prigerson et al., 2009; van der Houwen et al., 2010). As previously mentioned, the majority of the losses in the present sample were second-degree relatives. It is possible that relationships between the bereaved individuals and the deceased individuals were not close enough to elicit complicated grief. Consequently, this explanation also helps clarify why a relationship between complicated grief and unresolved loss was not found.

This study corroborated the fact that complicated grief is reliably assessed using a self-report measure by objectively coding for complicated grief using the Life Experiences Interview designed for this study. Because researchers' ratings of complicated grief using the Life Experience Interview and the participants' ratings of

their own complicated grief using the self-report questionnaire were strongly correlated, it can be concluded that complicated grief is likely a conscious construct, and the standardized measure of assessment is sufficient for obtaining an appraisal of complicated grief. On the other hand, unresolved loss is largely a non-conscious construct and was not empirically related to complicated grief in this study. Taken altogether, it can be theorized that unresolved may be a more pathological manifestation of complicated grief. It is possible that complicated grief starts as a conscious construct but as its symptoms appear to decline it can become a non-conscious part of the bereaved person's psyche. This would explain why complicated grief and unresolved loss have similarities when, in reality, they are likely separate constructs.

LIMITATIONS

The majority of studies assessing grief and loss focus participants' most impactful or most recent loss. In the present study, most participants reported information about several losses. To account for the reports of multiple losses, analyses were conducted using average scores of each loss characteristic as well as the scores for participants' first loss experience. It should be noted, however, that there are other possible ways to assess this data. Specifically, instead of using average scores for the loss characteristics, a cumulative score could be used to assess the additive effect of significant losses. Also, because participants' experiences of loss can vary across occurrences, a cluster analysis would be helpful to account for this variability.

One unique feature of the present study is the use of two different interviews on two separate occasions. Although the Adult Attachment Interview was always the first interview conducted, due to the nature of the samples used, the Life Experience Interview was administered two weeks later for some participants and three to four years later for

others. To account for the variability of time between interviews, future analyses should use time as a control variable.

FUTURE DIRECTIONS

A large proportion of the people lost in the current sample were grandparents who died of natural causes. To further understand the relationship between the characteristics of loss experiences and their influence on unresolved loss and complicated grief, it would be important to recruit a larger, more diverse sample increasing the likelihood of finding more losses due to suicide, homicide, and accidents versus mostly natural causes as well as more losses of first-degree relatives. Because of the nature of the sample, factors such as the cause of death and the importance of the person lost, which could be essential for becoming unresolved or developing complicated grief, may have been undetectable.

A large proportion of the participants in the current sample were unresolved (40%) but fewer than expected were classified as dismissing (7%). This sample differed from a typical non-clinical sample of mothers as indicated by a meta-analysis of the first 10,000 Adult Attachment Interviews (Bakermans-Kranenburg & van IJzendoorn, 2009). The typical four-category distribution of non-clinical mothers is 56% F, 9% E, 16% Ds, and 18%U. The likely explanation for this discrepancy is that the current participants were self-selecting into the study as it was indicated during recruitment that the study was examining challenging life experiences such as loss of a loved one. It is possible that dismissing individuals would not want to discuss losses as they typically do not feel comfortable discussing emotional/relational topics (Main et al., 2002). On the other hand, secure and preoccupied individuals may want to talk about loss experiences because they value attachment relationships. Because the study was about the loss of a loved one, mothers who had that experience may have chosen to participate to share their stories

thereby inflating the instances of unresolved loss. Future studies should consider this possibility when recruiting a sample of participants.

Further improvements to the current study would entail assessing unresolved loss for all participants at the same time. Specifically, some mothers in the current sample whose attachment was assessed several years ago may no longer be unresolved, while other mothers who were not-unresolved may have become unresolved due to a more recent loss. For example, one mother who was unresolved with respect to loss based on her adult attachment interview in a previous study lost her brother recently. Her discussion of this loss in the Life Experiences Interview exhibited many of the same characteristics found in an unresolved person's discussion of loss, such as talking about her brother in the present tense and how he is currently helping her and supporting her family. In a future study, it would be interesting to see the fluctuations of unresolved loss over time. Following mothers over time would allow researchers to understand the extent to which the unresolved status can change and conditions under which it changes. It would be interesting to examine whether being unresolved about one death makes a person more likely to be unresolved about future losses.

In the present study it was found that some mothers' descriptions of their loss experiences in the Adult Attachment Interview and the Life Experiences Interview were nearly word-for-word identical. This phenomenon was encountered even for participants whose interviews were several years apart. Conversely, other mothers told completely unique stories using the same facts, even when their interviews were only weeks apart. It would be interesting to see if there were differences between mothers who recite experiences versus mothers who describe experiences. It is possible that this difference in narrative style could represent a change in how mothers are thinking about their loss

experiences. Specifically, mothers who describe their loss experiences may be further along in their process of grief integration than mothers who recite their experiences. It would be interesting to see whether mothers' narratives change over time and, if so, how these changes relate to their patterns of grieving.

Clinical Implications

Findings from this study have helped delineate some circumstances surrounding loss experiences that may lead to particularly worrisome outcomes such as unresolved loss and complicated grief. Understanding what circumstances lead to poor outcomes can provide benefits for therapists who seek to help bereaved individuals cope with their grief. Therapists and counselors should be aware that perceived suddenness can be an important predictor of becoming unresolved. Based on the findings from this study, it is particularly important to help bereaved individuals who have expressed feelings that their loss experience was sudden, regardless of the physical cause of death.

It is also notable that emotional support received following one's first experience of loss has important implications for how individuals cope with bereavement. This is a particularly significant finding for grief therapists. The fact that individuals at any age were found to be more successful at coping with bereavement if they had positive emotional support shows the importance of having a supportive environment following loss.

Aside from the therapeutic implications, the current findings are also important for bereavement researchers. Complicated grief and unresolved loss were found to be separate constructs in this study, thereby contributing unique information about the nature of bereavement outcomes. It is well-documented that unresolved loss can lead to problems in parenting behaviors (Jacobvitz, et al., 2011) and romantics relationships

(Creasey, 2002). Further, complicated grief has been shown to be associated with problems of mental and physical health (Silverman et al., 2001). Combining assessments of bereavement outcomes from separate disciplines can help explain the full picture of how circumstances of loss experiences affect grieving individuals. A better understanding of bereavement outcomes will help therapists and counselors more successfully help bereaved individuals cope with their losses.

Table 1. *Characteristics of Loss Experiences*

Loss Variables		Frequency	Percent	Valid Percent	Cumulative Percent
Kinship Variables [a]	1st Degree Relative	27	10.0	10.0	10.0
	2nd Degree Relative (Grandparent)	151	56.1	56.1	66.1
	2nd Degree Relative (Non-grandparent)	45	16.7	16.7	82.8
	Non-Family Close	24	8.9	8.9	91.7
	Non-Family	21	7.8	7.8	99.5
	No Connection	1	.4	.4	100.0
	Total	269	100.0	100.0	
Importance Variables	Persistent Importance	21	7.8	7.8	7.8
	Principal Importance	37	13.8	13.8	21.6
	Marked Importance	29	10.8	10.8	32.4
	Important	29	10.8	10.8	43.2
	Minor Importance	60	22.3	22.3	65.5
	Minimal Importance	41	15.2	15.2	80.7
	Not Important	9	3.3	3.3	84.0
	Unknown	43	16.0	16.0	100.0
	Total	269	100.0	100.0	
Mode Of Death Variables	Natural/Anticipated	136	50.6	50.6	50.6
	Natural/Sudden	55	20.4	20.4	71.0
	Fatal Accident	24	8.9	8.9	79.9
	Suicide	9	3.3	3.3	83.3
	Homicide	1	0.4	0.4	83.6
	Unknown	44	16.4	16.4	100.0
	Total	269	100.0	100.0	

Table 1 (continued)

Suddenness Variables	Predictable	37	13.8	13.8	13.8
	Somewhat Predictable	21	7.8	7.8	21.6
	Neither Sudden Nor Predicted	33	12.3	12.3	33.8
	Somewhat Sudden	29	10.8	10.8	44.6
	Fairly Sudden	30	11.2	11.2	55.8
	Sudden: Accident/Health Problem	54	20.1	20.1	75.8
	Sudden: Violent/Intentional	21	7.8	7.8	83.6
	Unknown	44	16.4	16.4	100.0
	Total	269	100.0	100.0	
Emotional Support Variables	Complete Support	21	7.8	7.8	7.8
	Marked Support	18	6.7	6.7	14.5
	Support	43	16.0	16.0	30.5
	No Support Needed	55	20.4	20.4	50.9
	No Support Sought	53	19.7	19.7	70.6
	Marked Negative Support	28	10.4	10.4	81.0
	Complete Negative Support	8	3.0	3.0	84.0
	Unknown	43	16.0	16.0	100.0
	Total	269	100.0	100.0	
Daily Change Variables	Complete Change	6	2.2	2.2	2.2
	Significant Change	5	1.9	1.9	4.1
	Marked Change	14	5.2	5.2	9.3
	Change	18	6.7	6.7	16.0
	Some Change	40	14.9	14.9	30.9
	Minimal Change	74	27.5	27.5	58.4
	No Change	69	25.7	25.7	84.0
	Unknown	43	16.0	16.0	100.0
	Total	269	100.0	100.0	

Table 1 (continued)

Communi-cation Variables	No Memory Of Communication	18	6.7	6.7	6.7
	Direct Witness	22	8.2	8.2	14.9
	In-Person	37	13.8	13.8	28.6
	Phone Call Family	101	37.5	37.5	66.2
	Phone Call Organization	4	1.5	1.5	67.7
	Email/Voicemail	6	2.2	2.2	69.9
	After The Fact	8	3.0	3.0	72.9
	Overheard/Never Explicitly Told	6	2.2	2.2	75.1
	Unknown	67	24.9	24.9	100.0
	Total	269	100.0	100.0	

Note. a. The category Removed Connection was omitted because it had 0 cases.

Table 2. *Mothers' Attachment Classifications*

Attachment Category		Frequency	Percent	Valid Percent	Cumulative Percent
3-Category	Dismissing (Ds)	6	6.0	6.0	6.0
	Secure (F)	38	63.3	63.3	69.3
	Preoccupied (E)	16	26.7	26.7	100.0
	Total	60	100.0	100.0	
4-Category	Dismissing (Ds)	4	6.7	6.7	6.7
	Secure (F)	29	48.3	48.3	55.0
	Preoccupied (E)	3	5.0	5.0	60.0
	Unresolved (U)	24	40.0	40.0	100.0
	Total	60	100.0	100.0	

Table 3. *Correlations Among Average Loss Characteristics*

	Age	Kinship	Importance	Suddenness	Emotional Support	Daily Change	Commun-ication	Mode
Age	--							
Kinship	-0.05	--						
Importance	0.08	.24†	--					
Suddenness	0.12	0.03	.35**	--				
Emotional Support	0.05	-0.05	0.03	.28*	--			
Daily Change	0.10	0.05	.62***	.30*	0.09	--		
Communication	0.01	-0.04	-0.02	0.16	-0.05	0.13	--	
Mode	-0.05	-0.13	0.05	.71***	.31*	0.08	0.18	--

note. n = 60; $^{\dagger}p < .10$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table 4. *Correlations Among First Loss Characteristics*

	Age	Kinship	Importance	Suddenness	Emotional Support	Daily Change	Commun-ication	Mode
Age	--							
Kinship	-0.08	--						
Importance	.37**	0.01	--					
Suddenness	0.02	-0.35	0.03	--				
Emotional Support	.42**	-0.19	0.03	0.07	--			
Daily Change	.29*	-0.03	.59***	-0.05	0.07	--		
Communication	0.02	-0.04	0.001	0.04	-0.04	0.01	--	
Mode	-0.01	-.37**	0.01	.77***	0.18	0.05	0.08	--

note. n = 60; *$p < .05$; **$p < .01$; ***$p < .001$

Table 5. *Associations between Average Loss Codes and Unresolved Loss Score*

Variables[a]	B	S.E.	Beta	t
Age	.07	.05	.16	1.23
Kinship	.57	.45	.17	1.28
Importance	.42	.29	.19	1.43
Mode	-.18	.51	-.05	-.35
Suddenness	.44	.23	.25	1.96†
Emotional support	-.06	.27	-.03	-.23
Communication	.22	.40	.07	.54
Daily Change	.46	.36	.17	1.31

Note. n = 60; a. Each variable was tested individually; †$p < .10$

Table 6. *Associations between Risk Factors and Unresolved/Not Unresolved Loss using average scores for loss factors*

Predictors[a]	B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Kinship	.25	.44	.31	1	.573	1.28	.54 – 3.07
Importance	.44	.29	2.26	1	.132	1.55	.88 – 2.78
Mode	.02	.48	.002	1	.967	1.02	.39 – 2.66
Suddenness	.70	.27	6.82	1	.009	2.02	1.19 – 3.44
Age at Loss	.03	.05	.51	1	.474	1.03	.94 – 1.15
Emotional Support	-.17	.26	.41	1	.519	.84	.50 – 1.41
Daily Change	.21	.34	.39	1	.529	1.24	.63 – 2.45
Communication	.15	.38	.15	1	.693	1.16	.55 – 2.49

Note. n = 60; a. Each variable was tested individually

Table 7. *Interaction Between Average Mode and Average Suddenness Predicting Unresolved/Not Unresolved*

Predictors	B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Mode X Suddenness	-.39	.40	.91	1	.339	.67	.30 - 1.50

Note. n = 60

Table 8. *Logistic Regression Suppression Effect of Mode and Suddenness Predicting Unresolved/Not Unresolved*

Predictors		B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min – Max)
Block 1	Mode	.02	.48	.002	1	.967	1.02	.39 – 2.66
Block 2	Mode	-2.84	1.03	7.51	1	.006	.05	.01 – .45
	Suddenness	1.89	.56	11.33	1	.001	6.62	2.20 – 19.93

Note. n = 60

Table 9. *Associations between First Loss Codes and Unresolved Loss Score*

Variables[a]	B	S.E.	Beta	t
Age	.04	.03	.19	1.49
Kinship	-.01	.27	-.00	-.05
Importance	-.12	.19	-.08	-.62
Mode	-.41	.26	-.19	-1.53
Suddenness	.04	.13	.04	.34
Emotional support	-.22	.16	-.18	-1.39
Communication	-.19	.17	-.14	-1.05
Daily Change	-.12	.21	-.07	-.57

Note. n = 60; a. Each variable was tested individually

Table 10. *Associations between Risk Factors and Unresolved/Not Unresolved Loss using first loss scores for loss factors*

Predictors [a]	B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Kinship	-.02	.25	.007	1	.931	.97	.59 – 1.62
Importance	-.21	.19	1.16	1	.280	.80	.55 – 1.19
Mode	-.29	.29	1.06	1	.303	.74	.42 – 1.31
Suddenness	.15	.13	1.29	1	.255	1.16	.90 – 1.51
Age at Loss	.001	.03	.001	1	.975	1.00	.94 – 1.07
Emotional Support	-.32	.17	3.29	1	.070	.72	.51 – 1.03
Daily Change	-.50	.28	3.23	1	.072	.60	.35 – 1.05
Communication	-.03	.18	.03	1	.852	.96	.68 – 1.38

Note. n = 60; a. Each variable was tested individually

Table 11. *Interaction Between Age at First Loss and Emotional Support at First Loss Predicting Unresolved/Not Unresolved*

Predictors	B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Age X Emotional Support	-.01	.02	.14	1	.703	.99	.95 - 1.03

Note. n = 60

Table 12. *Effect of Age at First Loss and Emotional Support at First Loss Predicting Unresolved/Not Unresolved Loss*

Predictors		B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Block 1	Age	.001	.03	.001	1	.975	1.00	.94 – 1.07
Block 2	Age	.03	.03	.91	1	.340	1.03	.96 – 1.11
	Emotional Support	-.40	.20	4.00	1	.045	.66	.45 – .99

Note. n = 60

Table 13. *Association Between Average Suddenness and Unresolved Loss with Primary Attachment Category*

Predictors [a]		B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Unresolved-secure	Suddenness	.96	.37	6.55	1	.010	.96	.95 - 3.15
Unresolved-insecure	Suddenness	.54	.30	3.21	1	.073	1.73	1.25 - 5.51

Note. n = 60; a. The reference category is Not-unresolved

Table 14. *Association Between Emotional Support at First Loss and Unresolved Loss with Primary Attachment Category*

Predictors[a]		B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Unresolved-secure	Emotional Support	-.11	.23	.24	1	.62	.89	.37 - .96
Unresolved-insecure	Emotional Support	-.50	.23	4.37	1	.03	.60	.56 - 1.40

Note. n = 60; a. The reference category is Not-unresolved

Table 15. *Association Between Daily Change at First Loss and Unresolved Loss with Primary Attachment Category*

Predictors[a]		B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min-Max)
Unresolved-secure	Daily Change	-.44	.32	1.87	1	.170	.63	.33 - 1.21
Unresolved-insecure	Daily Change	-.59	.43	1.88	1	.170	.55	.23 - 1.29

Note. n = 60; a. The reference category is Not-unresolved

Table 16. *Average Loss Codes as Predicting Complicated Grief*

Variables[a]	B	S.E.	Beta	t
Age	.06	.30	.03	.22
Kinship	5.54	2.48	.28	2.22*
Importance	5.19	1.55	.40	3.34**
Mode	1.34	2.90	.06	.46
Suddenness	2.96	1.27	.29	2.33*
Emotional support	-.29	1.53	-.02	-.19
Communication	1.93	2.26	.11	.85
Change	8.32	1.74	.53	4.77***

Note. n = 60; a. Each variable was tested individually; * $p < .05$; ** $p < .01$; *** $p < .001$

Table 17. *Associations between Depressive Symptoms, Post-Traumatic Stress, and Complicated Grief Scores*

Variables	B	S.E.	Beta	t
Depressive Symptoms	1.04	.34	.52	3.05**
Post-Traumatic Stress	-.23	.28	-.14	-.82

Note. n = 60; **p < .01

Table 18. *Variables predicting Highest Subjective Complicated Grief Controlling for depressive symptoms*

Variables		B	S.E.	Beta	t
Block 1	CESD	.84	.24	.41	3.51**
Block 2	CESD	.45	.23	.22	1.91†
	Kinship	5.24	2.15	.26	2.43*
	Importance	-.23	1.83	-.01	-.12
	Suddenness	1.28	1.14	.12	1.11
	Change	6.11	2.23	.39	2.73**

Note. n = 60; † p < .10; * p < .05; ** p < .01

Table 19. *Associations between Complicated Grief Scores and Unresolved Loss*

Variables[a]	B	S.E.	Beta	t
Unresolved Loss Scale Score	.03	.13	.03	.22
Unresolved/Not Unresolved Category	4.15	3.41	.16	1.22

Note. n = 60; a. Each variable was tested individually

Table 20. *Highest Subjective Complicated Grief Score as Predicting Unresolved/Not Unresolved Loss*

Predictors	B	S.E.	Wald	df	Sig.	Exp(B)	CI 95% (Min – Max)
Complicated Grief	.02	.02	1.70	1	.192	1.03	.98 – 1.07

Note. n = 60

Figure 1. Mode of Death with Respect to Unresolved/Not Unresolved

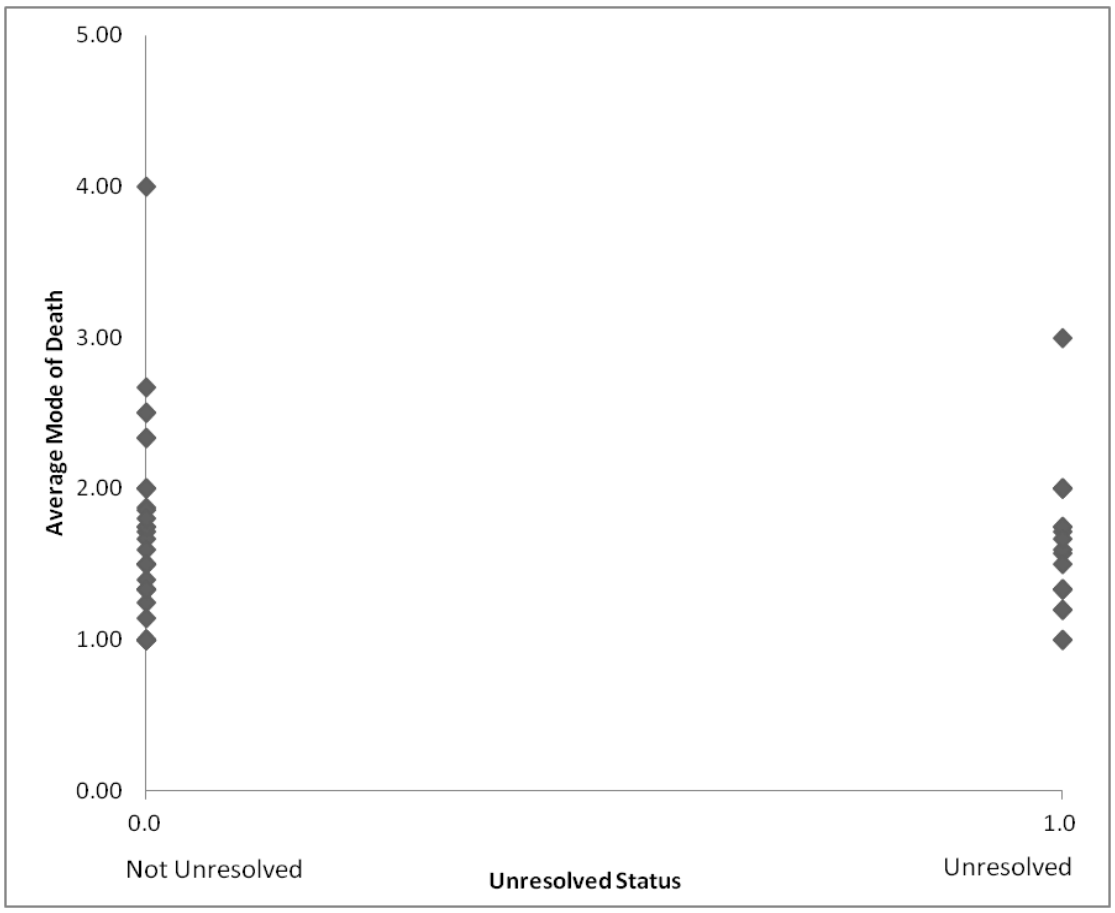
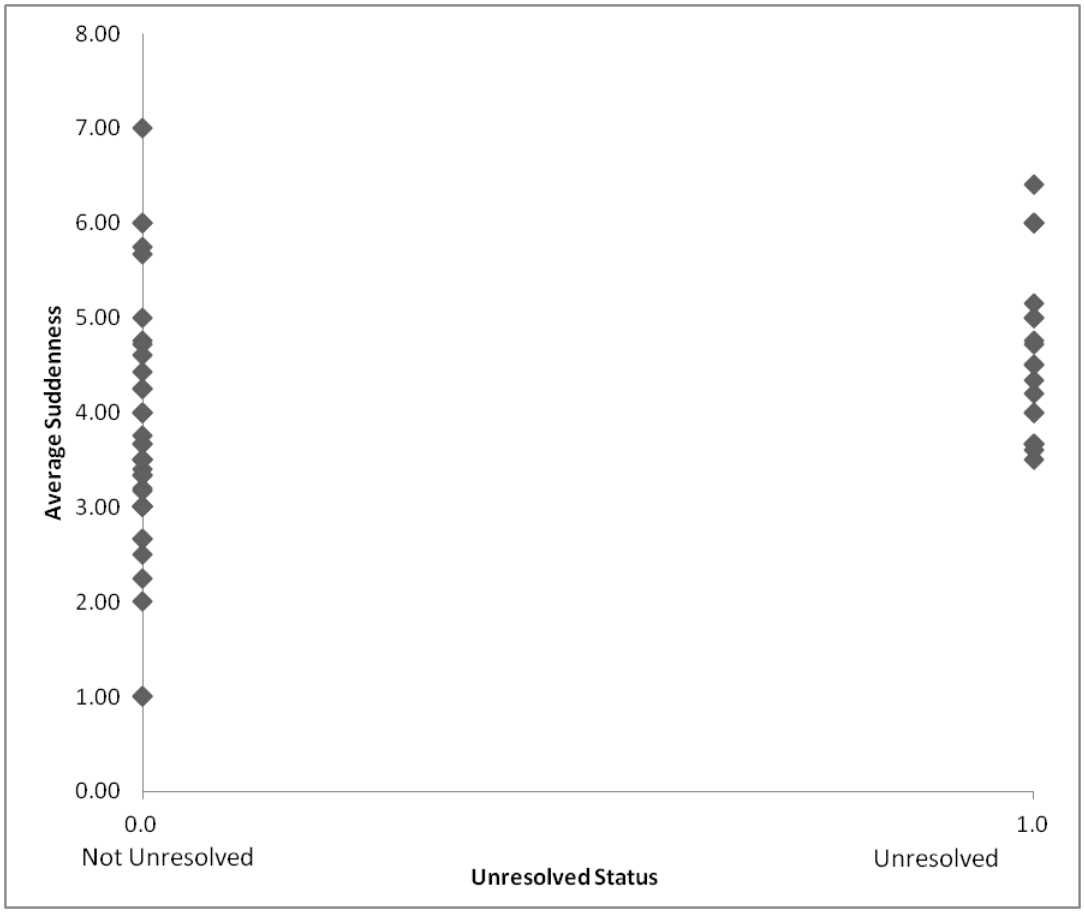


Figure 2. Average Suddenness with Respect to Unresolved/Not Unresolved



Appendices

APPENDIX A: The Adult Attachment Interview

APPENDIX B: The Life Experiences Interview

APPENDIX C: The Inventory of Complicated Grief - Revised

APPENDIX D: Diagnostic Criteria for Complicated Grief

APPENDIX E: Background Questionnaire

APPENDIX F: The Center for Epidemiological Studies - Depression

APPENDIX G: Complicated Grief Post-traumatic Stress Disorder

APPENDIX H: Conditions Leading to Unresolved Loss

APPENDIX I: Coding Sheet for Non-consciousness in the LEI

APPENDIX A: THE ADULT ATTACHMENT INTERVIEW

1. Could you start by helping me get oriented to your family situation like where you were born and what you family did various times for a living and did you move around much?

2. I'd like you to describe your relationship with your parents as a young child, if you could start from as far back as you can remember?

3. Now I'd like to ask you to choose 5 adjectives that reflect your childhood relationship with your mother, starting from as far back as you can remember in early childhood—as early as you can go, but say age 5 to 12 is fine. I know this may take a bit of time, so go ahead and think for a minute… then I'd like to ask you why you chose them. I'll write each one down as you give them to me.

Okay, now let me go through some more of my questions about your description of your childhood relationship with your mother. You mentioned (you used the phrase)_____. Are there any memories or incidents that come to mind with respect to _____?

4. Now I'd like to ask you to choose 5 adjectives that reflect your childhood relationship with your father, starting from as far back as you can remember in early childhood—as early as you can go, but say age 5 to 12 is fine. I know this may take a bit of time, so go ahead and think for a minute… then I'd like to ask you why you chose them. I'll write each one down as you give them to me.

Okay, now let me go through some more of my questions about your description of your childhood relationship with your mother. You mentioned (you used the phrase)_____. Are there any memories or incidents that come to mind with respect to _____?

5. Now I wonder if you could tell me, to which parent did you feel the closest, and why? Why isn't there this feeling with the other parent?

6.When you were upset as a child, what would you do?

When you were upset emotionally when you were little what would you do? Can you think of a specific time that happened?

Can you remember what would happen when you were hurt physically? Again, do any specific incidents come to mind?
Were you ever ill when you were little? Do you remember what would happen?
I was just wondering, do you remember being held by either of your parents at any of these times—I mean, when you were upset, or hurt, or ill?

7. What is the first time you remember being separated from your parents?

How did you respond? Do you remember how your parents responded?
Are there any other separations that stand out in your mind?

8.Did you ever feel rejected as a young child? Of course, looking back on it now, you may realize it was not really rejection, but what I'm trying to ask about here is whether you remember ever having felt rejected in childhood?

How old were you when you first felt this way, and what did you do?
Why do you think your parent did those things—do you think he/she realized he/she was rejecting you?

8a. Were you ever frightened or worried as a child?

9. Were your parents ever threatening with you in any way,--maybe for discipline, or maybe just jokingly?

Some people have told us for example that their parents would threaten to leave them or send them away from home. Some people have memories of some kind of behavior that was abusive. Did anything like this ever happen to you, or in your family?
How old were you at the time? Did it happen frequently?
Do you feel this experience affects you now as an adult?
Does it influence your approach to your own child?
Did you ever have any such experiences involving people outside your family?

10. In general, how do you think your overall experiences with your parents have affected your adult personality?

Are there any aspects to your early experiences that you feel were a set-back in your development?
Are there any other aspects of your early experiences that you think might have held your development back, or had a negative effect on the way you turned out?
Is there anything about your early experiences that you think might have held your development back, or had a negative effect on the way you turned out?

11. Why do you think your parents behaved as they did during your childhood?

12. Were there any other adults with whom you were close, like parents, as a child?

Or any other adults who were especially important to you, even though not parental?

13. Did you experience the loss of a parent or other close loved one while you were a young child—for example, a sibling, or a close family member?

Could you tell me about the circumstances, and how old you were at the time?
How did you respond at the time?
Was this death sudden or expected?
Can you recall your feelings at that time?
Have your feelings regarding this death changed much over time?
Did you attend the funeral, and what was this like for you?
What would you say was the effect on your (other parent) and on your household, and how did this change over the years?
Would you say this loss has had an effect on your adult personality?
How does it affect your approach to your own child?

13a. Did you lose any other important persons during your childhood?

13b. Have you lost other close persons in adult years?

How about pets?

14. Other than any difficult experiences you've already described, have you had any other experiences which you would regard as potentially traumatic?

15. Now I'd like to ask you a few more questions about your relationship with your parents. Were there many changes in your relationship with your parents (or remaining parent) after childhood? We'll get to the present in a moment, but right now I mean changes occurring roughly between your childhood and your adulthood.

16. Now I'd like to ask you, what is your relationship with your parents (or remaining parent) like for you now as an adult? Here I am asking about your current relationship.
Do you have much contact with your parents at present?
What would you say the relationship with your parents is like currently?

Could you tell me about any (or any other) sources of dissatisfaction in your current relationship with your parents? Any special (or any other) sources of special satisfaction?

17. **I'd like to move now to a different sort of question—it's not about your relationship with your parents, instead it's about an aspect of your current relationship with (specific child). How do you respond now, in terms of feelings, when you separate from your child/children?**

    Do you ever feel worried about (child)?

18. **If you had three wishes for your child twenty years from now, what would they be? I'm thinking partly of the kind of future you would like to see for your child. I'll give you a minute or two to think about this one.**

19. **Is there any particular thing which you feel you learned above all from your own childhood experiences? I'm thinking here of something you feel you might have gained from the kind of childhood you had.**

20. **We've been focusing a lot on the past in this interview, but I'd like to end up looking quite a ways into the future. We've just talked about what you think you may have learned from your own childhood experiences. I'd like to end by asking you what would you hope your child might have learned from his/her experiences of being parented by you?**

APPENDIX B: LIFE EXPERIENCES INTERVIEW

The goal of the following interview is to learn how people deal with life experiences. I will be asking you a series a questions about your experiences; some questions may be challenging or sensitive; some questions may apply to you, while others do not.

1. I would like to begin by asking you to tell me about the kinds of life experiences that you have found challenging – it could be anything that comes to mind.

2. I would like now to ask you about your transition to motherhood.

    a. Did you feel that you had to give up anything important to you during this transition?
    b. What are some of the joys you gained from motherhood?
    c. What are some of the challenges you encountered during this transition?
    d. What was the most valuable lesson you learned from this transition?

Now, I would like to focus on losses of important persons. First, I'd like to focus on loss due to separation. These losses can include a friendship that ended, a break-up of a non-marital romance, or divorce.

3. Have you ever had a friendship that ended that you wish it hadn't?
    a. Can you describe what happened?

4. Have you ever had a non-marital romantic relationship end in a way that upset you?
    a. Can you describe what happened?
    b. Do you think that experience affects your relationships now?

5. Have you ever experienced a divorce?
    a. Who initiated it?
    b. Can you describe what happened?
    c. How have you dealt with this experience?

I would like now to focus on losses stemming from the death of an important person. Have you ever lost anyone important to you?
(This section is for you, the interviewer, to write down some notes).

    a. Number of losses: _____
    b. Persons lost: (list)

6. How long ago did the loss occur?

7. Looking back, can you describe what your relationship with _____ was like?

8. What were the circumstances surrounding the loss? What happened and was it sudden or expected?
    a. How did you learn of the loss?
    b. How much notice did you have?

9. How did you respond to the loss at the time? How about soon after?
    a. What was the hardest part about this experience?
    b. What was the most troubling aspect of this experience?
    c. What did you do to cope with your feelings at the time?

10. What were your feelings towards _____ after hearing he/she died? (if they need clarification: you can say "Some people are angry at the person for dying, other people may feel happy for the person because they're no longer in pain")

11. What do you remember the most about the year following the loss?
    a. Were you able to return to your normal activities and routines after the first year?
    b. The second year?

12. Do you feel that this experience was traumatic or difficult in some way?

13. To what extent did you feel comfortable being with other people after the loss?
    a. *If person did not feel comfortable with others at the time,* is there a point at which you were more comfortable with others and if so, when did that occur?
    b. Was there anyone in particular you felt you could talk with about the loss?
    c. Aspects difficult to talk about?
    d. Is there anything about the loss that made it difficult to seek support from other people?

14. It's not uncommon for people to have conflicting feelings regarding the loss of a loved one. Where do you think you fall on this continuum? *(do you feel conflicted ever?)*
    a. When you think about _____ now, to what extent do you feel angry? sad?
    b. Are there other emotions you often feel?

15. Are there things that remind you of _____ now? It's a hard question, so why don't you take a minute to think about it.

16. When feelings and thoughts about the loss come up, how do you deal with it?

17. What advice would you give someone who was experiencing a similar loss?

APPENDIX C: INVENTORY OF COMPLICATED GRIEF- REVISED

Please circle the number next to the answer that best describes how you have been feeling over the past month. The blanks refer to the deceased person. Please choose the description that comes closest to how you feel.

Section A

1) I am preoccupied with thoughts of _____'s death.

Almost never (less than once a month)	1
Rarely (monthly)	2
Sometimes (weekly)	3
Often (daily)	4
Always (several times a day)	5

2) I feel drawn to places and things associated with _____.

Almost never (less than once a month)	1
Rarely (monthly)	2
Sometimes (weekly)	3
Often (daily)	4
Always (several times a day)	5

3) I feel myself longing and yearning for _____.

No sense of longing and yearning	1
Slight sense of longing and yearning	2
Some sense	3
A marked sense	4
An overwhelming sense	5

4) I feel lonely since _____ died.

No loneliness	1
Feel slightly lonely	2
Feel somewhat lonely	3
Feel markedly lonely	4

Feel overwhelmingly lonely 5

Section B

1) I go out of my way to avoid reminders that _____ is gone.

Almost never (less than once a month) 1
Rarely (monthly) 2
Sometimes (weekly) 3
Often (daily) 4
Always (several times a day) 5

2) I feel like the future holds no meaning or purpose without _____.

No sense that the future holds no purpose 1
Slight sense that the future holds no purpose 2
Some sense 3
A marked sense 4
An overwhelming sense 5

3) I feel like I have become numb or detached since the death of _____.

No sense of numbness 1
Slight sense of numbness 2
Some sense 3
A marked sense 4
An overwhelming sense 5

4) I feel stunned, dazed, or shocked over _____'s death.

No sense of being stunned, dazed, or shocked 1
Slight sense of being stunned, dazed, or shocked 2
Some sense 3
A marked sense 4
An overwhelming sense 5

ICG-R (continued)

5) I feel disbelief over _____'s death.

Almost never (less than once a month)	1
Rarely (monthly)	2
Sometimes (weekly)	3
Often (daily)	4
Always (several times a day)	5

6) I feel that life is empty or meaningless without _____.

No sense of emptiness or meaninglessness	1
Slight sense of emptiness or meaninglessness	2
Some sense	3
A marked sense	4
An overwhelming sense	5

7) It is difficult for me to imagine life being fulfilling without _____.

Not difficult to imagine life being fulfilling	1
Slightly difficult to imagine life being fulfilling	2
Somewhat difficult	3
Markedly difficult	4
Overwhelmingly difficult	5

8) I feel that a part of myself died along with _____.

Almost never (less than once a month)	1
Rarely (monthly)	2
Sometimes (weekly)	3
Often (daily)	4
Always (several times a day)	5

ICG-R (continued)

9) I feel that the death has changed my view of the world.

No sense of a changed world view	1
Slight sense of a changed world view	2
Some sense	3
A marked sense	4
An overwhelming sense	5

10) I feel pain in the same area of my body, some of the same symptoms, or have assumed some of the behaviors or characteristics of _____ before he/she died.

Almost never (less than once a month)	1
Rarely (monthly)	2
Sometimes (weekly)	3
Often (daily)	4
Always (several times a day)	5

11) I am bitter over _____'s death.

No sense of bitterness	1
Slight sense of bitterness	2
Some sense	3
A marked sense	4
An overwhelming sense	5

ICG-R (continued)

Section C

I have experienced the above feelings [the ones which you reported having] for at least 6 months.

Yes	1
No	2
Not applicable - reported having none of the above symptoms	3

Section D

I believe that my grief has resulted in functional impairment (i.e., impairment in my social, occupational or other areas of functioning) in the past month.

No functional impairment	1
Slight functional impairment	2
Some functional impairment	3
Marked functional impairment	4
Completely functional impairment	5

APPENDIX D: DIAGNOSTIC CRITERIA FOR THE ICG-R

Categorical:

1. The person has experienced the death of a significant other.

2. Criterion A- Separation distress
The response involves 3 of the 4 following symptoms rated as 4 or 5 by the person.

a) Intrusive thoughts about the deceased
b) Searching for deceased
c) Yearning for deceased
d) Excessive loneliness since the death

3. Criterion B- Traumatic distress
The response involves 6 of the 11 following symptoms rated as 4 or 5 by the person.

a) Frequent efforts to avoid reminders of the deceased
b) Purposelessness or feelings of futility about the future
c) Subjective sense of numbing, detachment, or absence of emotional responsiveness
d) Feeling stunned, dazed, or shocked
e) Difficulty acknowledging the death (e.g. disbelief)
f) Feeling life is empty or meaningless
g) Difficulty imagining a fulfilling life with the deceased
h) Feeling that part of oneself has died
i) Shattered worldview (e.g., lost sense of security, trust or control)
j) Assumes symptoms or harmful behaviors of, or related to, the deceased person
k) Excessive irritability, bitterness, or anger related to the death

4. Criterion C- Duration
The duration of the disturbance (symptoms listed) is at least 6 months.

5. Criterion D- Functional Impairment
The disturbance cause clinically significant impairment in social, occupational, or other important areas of functioning.

Continuous:

Sum the scores from Criteria A-D. Criterion C is scored 1 for yes, 0 for no or n/a.

APPENDIX E: BACKGROUND QUESTIONNAIRE

1. **a) What is your birth date (Month/Day/Year)? ____/_____/____**
   b) What is your age?_____

2. **Please indicate your sex**: □ **Male** □ **Female**

3. **Please indicate the number of children you have and their ages**:

   name: _____age:_____

   name: _____age:_____

   name: _____age:_____

   name: _____age:_____

4. **What is your marital status?**

a. Single
b. Married
c. Divorced
d. Widowed
e. Separated

5. **What is your ethnicity?**

a. Latino
b. African-American
c. Caucasian
d. Asian
e. Native American
f. Other, explain:
_____

6. **What is your partner's ethnicity?**

a. Latino
b. African-American
c. Caucasian
d. Asian
e. Native American
f. Other, explain:
_____

7. **What culture do you identify with?**

_____

8. What is your education level?

a. did not complete high school
b. completed high school
c. completed some college
d. completed college
e. completed graduate level education

9. What is your partner's education level?

a. did not complete high school
b. completed high school
c. completed some college
d. completed college
e. completed graduate level education

10. What is your level of income?

a. under $15,000
b. $15,000 – $24,999
c. $25,000 – $34,999
d. $35,000 – $49,999
e. $50,000 – $74,999
f. $75,000 – $99,999
g. $100,000 and above

11. What is your partner's level of income?

a. under $15,000
b. $15,000 – $24,999
c. $25,000 – $34,999
d. $35,000 – $49,999
e. $50,000 – $74,999
f. $75,000 – $99,999
g. $100,000 and above

12. What is your employment status?

a. employed
b. retired
c. unemployed; looking for work
d. unemployed; not looking (e.g. sick, disabled, etc.)
e. part-time student
f. full-time student

13. What is your partner's employment status?

a. employed
b. retired
c. unemployed; looking for work
d. unemployed; not looking (e.g. sick, disabled, etc.)
e. part-time student
f. full-time student

14. What is the education level of your mother?

a. did not complete high school
b. completed high school
c. completed some college
d. completed college
e. completed graduate level education

15. What is the education level of your father?

a. did not complete high school
b. completed high school
c. completed some college
d. completed college
e. completed graduate level education

16. Please indicate the events you have experienced:

- ☐ Adoption
- ☐ Loss of a parent
- ☐ Loss of sibling
- ☐ Loss of a grandparent
- ☐ Loss of aunt or uncle
- ☐ Other losses _____
- ☐ Parental abandonment/rejection
- ☐ Parental psychiatric problems
- ☐ Parental imprisonment
- ☐ Physical abuse
- ☐ Emotional/psychological abuse
- ☐ Sexual abuse

APPENDIX F: CENTER FOR EPIDEMIOLOGICAL STUDIES – DEPRESSION

Mood

Below is a list of the ways you might have felt or behaved.
Please indicate ho w often you have felt this way ***during the past week*** *.*

	Rarely or none of the time	Some or a little of the time	Occasionally or a moderate	Most or all of the time
1) I was bothered by things that don't usually bother me	☐	☐	☐	☐
2) I did not feel like eating; my appetite was poor	☐	☐	☐	☐
3) I felt that I could not shake off the blues even with help from family or friends	☐	☐	☐	☐
4) I felt I was just as good as other people	☐	☐	☐	☐
5) I had trouble keeping my mind on what I was doing	☐	☐	☐	☐
6) I felt depressed	☐	☐	☐	☐
7) I felt that everything I did was an effort	☐	☐	☐	☐
8) I felt hopeful about the	☐	☐	☐	☐
9) I thought my life had been a failure	☐	☐	☐	☐
10) I felt fearful	☐	☐	☐	☐
11) My sleep was restless	☐	☐	☐	☐
12) I was happy	☐	☐	☐	☐
13) I talked less than usual	☐	☐	☐	☐
14) I felt lonely	☐	☐	☐	☐
15) People were unfriendly	☐	☐	☐	☐
16) I enjoyed life	☐	☐	☐	☐
17) I had crying spells	☐	☐	☐	☐
18) I felt sad	☐	☐	☐	☐
19) I felt that people dislike me	☐	☐	☐	☐
20) I could not get "going"	☐	☐	☐	☐

APPENDIX G: TRAUMA INVENTORY

Instructions: Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then circle one of the numbers to the right to indicate how much you have been bothered by that problem *in the past month*.

		Not at all	A little bit	Moderately	Quite a bit	Extremely
1)	Repeated, disturbing memories, thoughts, or images of a stressful experience from the past	1	2	3	4	5
2)	Repeated, disturbing dreams of a stressful experience from the past	1	2	3	4	5
3)	Suddenly acting or feeling as if a stressful experience from the past was happening again (as if you were reliving it)	1	2	3	4	5
4)	Feeling very upset when something reminded you of a stressful experience from the past	1	2	3	4	5
5)	Having physical reactions (e.g., heart pounding, trouble breathing, sweating) when something reminded you of a stressful experience from the past	1	2	3	4	5

PTSD-Civilian Version (continued)

6)	Avoiding thinking about or talking about a stressful experience from the past or avoiding having feelings related to it	1	2	3	4	5
7)	Avoiding activities or situations because they reminded you of a stressful experience from the past	1	2	3	4	5
8)	Trouble remembering important parts of a stressful experience from the past	1	2	3	4	5
9)	Loss of interest in activities you used to enjoy	1	2	3	4	5
10)	Feeling distant or cut off from other people	1	2	3	4	5
11)	Feeling emotionally numb or being unable to have loving feelings for those close to you	1	2	3	4	5
12)	Feeling as if your future somehow will be cut short	1	2	3	4	5
13)	Trouble falling asleep or staying asleep	1	2	3	4	5
14)	Feeling irritable or having angry outbursts	1	2	3	4	5
15)	Having difficulty concentrating	1	2	3	4	5
16)	Being "super alert" or watchful or on guard	1	2	3	4	5
17)	Feeling jumpy or easily startled	1	2	3	4	5

APPENDIX H: LOSS CODING SYSTEM

Kinship

The Kinship scale indicates the general relationship between the bereaved and the deceased. Higher scores indicate a closer relationship in terms of degree-of-separation, not in terms of importance (see below). To be used to characterize the general relation the participant had with a lost person; coded for each loss experience.

7- *Immediate Family/first-degree*: mother, father, spouse, child, sibling
6- *Extended Family/second-degree 1*: grandparent
5- *Extended Family/second-degree 2*: aunt/uncle, cousin, other extended family
4- *Non-family/ Close Relation*: friend, romantic-relationship, "friends like family"
3- *Non-family*: circle of friends, acquaintance, co-worker, teacher
2- *Removed Connection*: family (immediate/grandparent) but never met or hardly knew
1- *No immediate connection*: stranger, neighbor, extended family never met

Mode of Death

The Mode Scale classifies the physical cause of death for each loss; coded for each loss experience.

1) *Natural/Anticipated*: long-term illness, cancer
2) *Natural/Sudden*: heart attack, stroke
3) *Fatal Accident*: car accident, home accident, work accident
4) *Suicide*
5) *Homicide*

Importance Scale

The Importance scale assesses the importance of the deceased person to the bereaved person. Degree of importance can be assessed by examining quantity and quality of time spent together. The more the deceased person was involved in day-to-day aspects of the participant's life and the more the participant relied on the deceased, the higher the score. Further, scores were raised if the participant was a source of support to the deceased (i.e., a caregiver). To be used to characterize the degree of importance of the lost relationship; coded for each loss experience.

7- *Persistent Importance*: relationship was extremely personal; P relied heavily on person for all types of support: emotional, financial, medical, etc

6- *Principal Importance*: spent significant amount of time together; relied on person for much (but not all) emotional and other support

5- *Marked Importance*: marked support, physical affection, significant contact (at least twice/wk)

4- *Important*: minimal indications of support; regular (weekly) contact

3- *Minor Importance*: signs of emotional connection; P looked up to person; some contact (less than weekly)

2- *Minimal Importance*: infrequent interaction with P; not much emotional connection

1- *Not Important*: no emotional relationship; extremely limited or no contact with P

Suddenness Scale

The Suddenness scale assesses the level of predictability of the loss. Degree of suddenness can be assessed by examining how much notice the participant had before the loss occurred as well as the participant's perception of expectedness. The more a person felt the loss was sudden or unexpected, the higher the score. To be used to characterize the amount of perceived suddenness of the loss; coded for each loss experience.

7- *Sudden/Unexpected/violent, intentional, unusual*: violent or intentional death (e.g., murder, suicide); sudden accident in non-traditional fashion (e.g., killed in a fire, drowning); miscarriage

6- *Sudden/Unexpected/accident or health problem*: completely unanticipated; no history or prior conditions contributing to loss; e.g., car/work accident, heart attack/stroke (with no prior history) other possible examples: allergic reaction, organ failure

5- *Fairly Sudden/unexpected*: illness that progressed quickly, less than 6 months, hospice may be involved; cancer that was in remission, but then quickly downhill

4- *Somewhat Sudden/unexpected*: prior condition (e.g., multiple heart attacks); illness that progressed quickly, 6 months - 1 year; hospice likely involved

3- *Neither sudden nor predicted*: old age; not really sick, so death was not a surprise, but still unexpected at that moment; hospice probably involved; feeling sudden at the time, but knowing it really wasn't

2- *Somewhat predictable/expected*: chronic illness 1-2 years; person in hospice

1- *Predictable/Expected*: very sick; chronic illness 2 years or more (e.g., Alzheimer's, cancer, etc.); perhaps person was in an assisted living facility or had loss of bodily function

Emotional Support Scale

The Emotional Support scale assesses the level of support the participant felt following the loss. Degree of support can be assessed by examining whether the participant felt she was able mourn openly and/or had a specific source of comfort. Individuals who were minimally affected by the loss and felt no grief were assigned a 4. Higher scores (5-7) were assigned when participants received positive support in the form of being accepted in their grief or having a source of comfort. Lower scores (1-3) were assigned when participants received negative support in the form of being discouraged from emotional displays or trying to self-soothe. To be used to characterize the amount of perceived emotional support after the loss; coded for each loss experience.

7- *Complete Support*: P received support without asking; encouraged to express feelings, ask questions; P was listened to; had a person P could go to

6- *Marked Support*: P had support, support was offered freely; physical affection as well as emotional expression welcomed/encouraged; P had person she could go to/knew would be supportive, but chose not to seek that support

5- *Support*: P had support, but also kept to self; unsure about whether requests for support would be well-received, but had support anyway; may have also given support to others; may have gotten physical affection (hugs) more than discussion/expression of feelings

4- *No Support Needed*: not affected by loss in way that P needs support (not close to lost person); may have felt some sadness, but not much more than that.

3- *No Support*: P chose to self-soothe (listening to music, reading books, writing poetry); may have tried to seek information/discuss loss, but not well received; may have been the one who gave support to others, but received none in return

2- *Marked Negative Support*: Generally discouraged from seeking support (i.e., ignored when asking for information, support withheld intentionally when sought; wanted to discuss loss, but had no outlet; didn't know what was going on/death not explained (specifically to child); felt empty/lost; had some destructive behavior (acting out, drinking, smoking)

1- *Complete Negative Support*: wanted to discuss loss, but extremely discouraged from seeking support (i.e., punished for asking for information)

Change Scale

The change scale assesses the effects of impact of loss on person. Degree of life change can be assessed by examining alterations in thinking, feelings, behavior, or all 3. The more a person's thoughts, feelings and behaviors deviate both from prior to loss and from norms, the higher the score. To be used to characterize the amount of change P experienced following the loss; coded for each loss experience; coded for physical/environmental change; Also consider positive change.

7- *Complete Change*: normal activities/family structure/social circle changed; all aspects of P's life are affected by loss; P takes on new role (e.g., Parentification, spousification- becoming a confidant for an adult during childhood)

6- *Significant Change*: immediate family structure/social circle changed affecting routine; may have taken on new responsibilities, but role remains mostly stable; may have had to move or change lifestyle after loss

5- *Marked Change*: immediate family structure/social circle changed affecting routine, daily activities

4- *Change*: immediate family structure/social circle changed but not much impact on general routine; mourning 6mos- 1 year

3- *Some Change*: most activities continued as normal; following a moderate period of mourning (1 week - 1 month); normal activities changed; new routine was adopted following loss experience, but did not vary much. Slight adjustment to normal routine.

2- *Minimal Change*: most activities continued as normal; following a short period of mourning (a week or less)

1- *No Change*: all activities continued as normal; no mourning

Communication

The Communication scale assesses how the participant learned of the loss. Degree of communication can be assessed by examining how much how the person found out her loved one had died. Scores of 0 indicated the participant could not remember how they learned of the loss. Lower scores indicated more direct communication such as being present at the death. Higher scores indicated more indirect communication where the participant is not able to ask questions about the loss or participate in loss activities (i.e. funeral). To be used to characterize the directness of communication about death; coded for each loss experience.

To be used to characterize the way P learned of the loss. Provide general description. Below are some options, examples:

0- *No recollection*: P did not remember how she learned of the loss or cannot say with confidence how she found out.

7- *Never told*: may have attended funeral, but was never told what actually happened (typical in children); may have been given a euphemistic explanation "grandma is on vacation;" may have overheard people talking about it, but was never directly told.

6- *Found out late*: learned of the loss after-the-fact, not in time to attend the funeral. Could be from phone call, email, newspaper, etc., but the timing of it is what's important for this category

5- *Indirect*: found out via 3rd party system such as an email or voicemail; something impersonal

4- *Phone organization*- Received phone call from an organization such as the hospital, hospice

3- *Phone from Family*- Had a phone call from someone important/close to them, can be a friend if the loss of a friend

2- *Told in-person*: Was told about the loss in person allowing for the possibility of comfort (whether or not that actually happened)

1- *Direct Witness*: saw death occur or was present at the death (i.e., at the hospital, with the person in the room, at scene of death)

APPENDIX I: CODING SCHEME FOR NON-CONSCIOUSNESS IN THE ILEI

Scored objectively regarding subject's most significant loss. Loss is rated for separation distress, traumatic distress, and functional impairment. Each segment is given a score; those scores are totaled for each category. Each category's score is totaled for an overall CG score.

LEAHP Id: **TOTAL CG SCORE::**

Loss Id:

Separation Distress:

Ratings: 0 = no indices, 1 = some indices, 2 = indicated

☐ Intrusive thoughts about deceased

☐ Yearning for deceased

☐ Searching for deceased

☐ Excessive loneliness since death

Traumatic Distress:

Ratings: 0 = no indices, 1 = some indices, 2 = indicated

☐ Frequent efforts to avoid reminders of the deceased (thoughts, feelings, activities, people, places)

☐ Purposelessness or feelings of futility about the future

☐ Subjective sense of numbess, detachment, or absence of emotional responsiveness

☐ Feeling stunned, dazed, shocked

☐ Difficulty acknowledging death (disbelief/denial)

☐ Feeling life is empty or meaningless

☐ Difficulty imagining a fulfilling life without the deceased

☐ Feeling that part of oneself has died

☐ Shattered worldview (loss of security, trust, or control)

☐ Assumes symptoms or harmful behaviors of, or related to, the deceased person

☐ Excessive irritability, bitterness, or anger related to death

Duration of disturbance:

0 No symptoms occurred
1 symptoms occurred in the past, but have diminished
2 symptoms occur in present

Significant impairment: functional, occupational, social

0 No impairment
1 Impairment in the past
2 Impairment in the present

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